



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 198717

TO: ERICH A LEESER

Location: rem

Art Unit: 1624

Tuesday, August 15, 2006

Case Serial Number: 10/811,428

From: Saloni Sharma

Location: Biotech-Chem Library

REM-1A64

Phone: (571)272-8601

saloni.sharma@uspto.gov

### Search Notes

Examiner LEESER,

See attached results.

If you have any questions about this search feel free to contact me at any time.

Thank you for using STIC search services!

Saloni Sharma  
Technical Information Specialist  
STIC Biotech/Chem Library  
(571)272-8601



# STIC SEARCH RESULTS FEEDBACK FORM

## Biotech-Chem Library

Questions about the scope or the results of the search? Contact *the searcher* or contact:

Mary Hale, Information Branch Supervisor  
Remsen Bldg. 01 D86  
571-272-2507

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 1610

➤ Relevant prior art found, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s).
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art not found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC Biotech-Chem Library, Remsen Bldg.



=> d his nofile

(FILE 'HOME' ENTERED AT 08:36:17 ON 15 AUG 2006)

FILE 'REGISTRY' ENTERED AT 08:36:23 ON 15 AUG 2006

L1 STRUCTURE UPLOADED

L2 0 SEA SSS SAM L1

FILE 'REGISTRY' ENTERED AT 09:26:40 ON 15 AUG 2006

L3 STRUCTURE UPLOADED

D QUE L3

L4 14 SEA SSS SAM L3

D QUE L3

L5 2753 SEA SSS FUL L3

SAVE L5 LEESER428/A TEMP

FILE 'CAPLUS' ENTERED AT 09:28:35 ON 15 AUG 2006

L6 181 SEA ABB=ON PLU=ON L5

FILE 'REGISTRY' ENTERED AT 09:28:45 ON 15 AUG 2006

FILE 'CAPLUS' ENTERED AT 09:28:48 ON 15 AUG 2006

E US2004-811428/APPS

L7 1 SEA ABB=ON PLU=ON US2004-811428/AP

SEL RN L7

FILE 'REGISTRY' ENTERED AT 09:29:02 ON 15 AUG 2006

L8 194 SEA ABB=ON PLU=ON (100-65-2/BI OR 1003-29-8/BI OR 10472-24-9/BI OR 105-53-3/BI OR 1068-90-2/BI OR 107-91-5/BI OR 1073-13-8/BI OR 108554-34-3/BI OR 109-77-3/BI OR 109-81-9/BI OR 111-33-1/BI OR 122-01-0/BI OR 123-00-2/BI OR 123-75-1/BI OR 14080-51-4/BI OR 14246-77-6/BI OR 1479-24-9/BI OR 159326-66-6/BI OR 159326-69-9/BI OR 16135-36-7/BI OR 1663-61-2/BI OR 1670-14-0/BI OR 16952-66-2/BI OR 1711-09-7/BI OR 1711-10-0/BI OR 17219-22-6/BI OR 175406-94-7/BI OR 1990-90-5/BI OR 24095-60-1/BI OR 24889-15-4/BI OR 24889-16-5/BI OR 2516-47-4/BI OR 25560-00-3/BI OR 27578-60-5/BI OR 2799-16-8/BI OR 2799-17-9/BI OR 3357-55-9/BI OR 35261-01-9/BI OR 360-97-4/BI OR 387824-61-5/BI OR 393-52-2/BI OR 394-29-6/BI OR 40018-26-6/BI OR 40711-41-9/BI OR 41276-30-6/BI OR 41302-34-5/BI OR 4255-62-3/BI OR 4513-94-4/BI OR 5036-48-6/BI OR 504-24-5/BI OR 51387-90-7/BI OR 52133-67-2/BI OR 5417-82-3/BI OR 54820-92-7/BI OR 57595-23-0/BI OR 58073-90-8/BI OR 60585-44-6/BI OR 60776-91-2/BI OR 61-82-5/BI OR 61278-21-5/BI OR 618-39-3/BI OR 618-46-2/BI OR 674793-32-9/BI OR 7154-73-6/BI OR 765-30-0/BI OR 7663-77-6/BI OR 773138-38-8/BI OR 773138-40-2/BI OR 773138-42-4/BI OR 773138-44-6/BI OR 773138-46-8/BI OR 773138-48-0/BI OR 773138-50-4/BI OR 773138-52-6/BI OR 773138-54-8/BI OR 773138-56-0/BI OR 773138-58-2/BI OR 773138-60-6/BI OR 773138-62-8/BI OR 773138-64-0/BI OR 773138-66-2/BI OR 773138-68-4/BI OR 773138-70-8/BI OR 773138-72-0/BI OR 773138-74-2/BI OR 773138-76-4/BI OR 773138-78-6/BI OR 773138-80-0/BI OR 773138-82-2/BI OR 773138-84-4/BI OR 773138-86-6/BI OR 773138-88-8/BI OR 773138-90-2/BI OR 773138-92-4/BI OR 773138-94-6/BI OR 773138-96-8/BI OR 773138-98-0/BI OR 773139-00-7/BI OR 773139-03-0/BI OR 773139-05-2/BI OR 773139-07-4/BI OR 773139-09-6/BI OR 773139-11-0/BI OR 773139-13-2/BI OR 773139-15-4/BI OR 773139-17

L9 79 SEA ABB=ON PLU=ON L8 AND L5

FILE 'STNGUIDE' ENTERED AT 09:29:38 ON 15 AUG 2006

FILE 'REGISTRY' ENTERED AT 09:29:53 ON 15 AUG 2006

L10 STRUCTURE UPLOADED  
D QUE L10  
L11 4 SEA SUB=L5 SSS SAM L10  
L12 55 SEA SUB=L5 SSS FUL L10

FILE 'CAPLUS' ENTERED AT 09:31:23 ON 15 AUG 2006

L13 11 SEA ABB=ON PLU=ON L12  
L14 0 SEA ABB=ON PLU=ON L13 NOT (PY>2003 OR AY>2003 OR PRY>2003)  
L15 103 SEA ABB=ON PLU=ON L6 NOT (PY>2003 OR AY>2003 OR PRY>2003)

FILE 'BEILSTEIN' ENTERED AT 09:32:13 ON 15 AUG 2006

L16 0 SEA SSS FUL L10

FILE 'MARPAT' ENTERED AT 09:33:01 ON 15 AUG 2006

L17 2 SEA SSS SAM L10  
L18 15 SEA SSS FUL L10  
L19 9 SEA ABB=ON PLU=ON L18 NOT L13

FILE 'HCAPLUS' ENTERED AT 09:33:41 ON 15 AUG 2006

E DUGAR S/AU  
L20 104 SEA ABB=ON PLU=ON ("DUGAR S"/AU OR "DUGAR S K"/AU OR "DUGAR S M"/AU OR "DUGAR S V"/AU OR "DUGAR SUNDEEP"/AU)  
E CHAKRAVARTY S/AU  
L21 193 SEA ABB=ON PLU=ON ("CHAKRAVARTY S"/AU OR "CHAKRAVARTY S C"/AU OR "CHAKRAVARTY S D"/AU OR "CHAKRAVARTY S K"/AU OR "CHAKRAVARTY S L"/AU OR "CHAKRAVARTY S N"/AU OR "CHAKRAVARTY S R"/AU OR "CHAKRAVARTY SARJAVIT"/AU OR "CHAKRAVARTY SARVAJIT"/AU)  
E CONTE A/AU  
L22 128 SEA ABB=ON PLU=ON ("CONTE A"/AU OR "CONTE A A"/AU OR "CONTE A A JR"/AU OR "CONTE A C JR"/AU OR "CONTE A J"/AU OR "CONTE A M"/AU OR "CONTE A T HERNANDEZ"/AU OR "CONTE AURELIA"/AU)  
E AXON J/AU  
L23 10 SEA ABB=ON PLU=ON ("AXON J"/AU OR "AXON J B"/AU OR "AXON J M C"/AU OR "AXON JONATHAN"/AU OR "AXON JONATHAN R"/AU)  
E MCENROE G/AU  
L24 27 SEA ABB=ON PLU=ON ("MCENROE G"/AU OR "MCENROE GLEN"/AU OR "MCENROE GLENN"/AU OR "MCENROE GLENN A"/AU)  
E MURPHY A/AU  
L25 285 SEA ABB=ON PLU=ON ("MURPHY A"/AU OR "MURPHY A A"/AU OR "MURPHY A B"/AU OR "MURPHY A C"/AU OR "MURPHY A D"/AU OR "MURPHY A DON"/AU OR "MURPHY A DOUGLAS"/AU OR "MURPHY A E"/AU OR "MURPHY A F"/AU OR "MURPHY A G"/AU OR "MURPHY A G V"/AU OR "MURPHY A H"/AU OR "MURPHY A J"/AU OR "MURPHY A JR"/AU OR "MURPHY A K"/AU OR "MURPHY A L"/AU OR "MURPHY A M"/AU OR "MURPHY A N"/AU OR "MURPHY A P"/AU OR "MURPHY A R"/AU OR "MURPHY A R VASUDEVA"/AU OR "MURPHY A REG"/AU OR "MURPHY A S"/AU OR "MURPHY A S P"/AU OR "MURPHY A SCOTT"/AU OR "MURPHY A ST J"/AU OR "MURPHY A STJ"/AU OR "MURPHY A T"/AU OR "MURPHY A W"/AU OR "MURPHY A Z"/AU OR "MURPHY AL"/AU OR "MURPHY ALISON"/AU OR "MURPHY ALISON A"/AU)  
L26 32 SEA ABB=ON PLU=ON (L20 AND (L21 OR L22 OR L23 OR L24 OR L25)) OR (L21 AND (L22 OR L23 OR L24 OR L25)) OR (L22 AND (L23 OR L24 OR L25)) OR (L23 AND (L24 OR L25)) OR (L24 AND L25)

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 09:37:05 ON 15 AUG 2006



L27 0 SEA ABB=ON PLU=ON L12  
L28 0 SEA ABB=ON PLU=ON L5

FILE 'CAOLD' ENTERED AT 09:37:58 ON 15 AUG 2006

L29 0 SEA ABB=ON PLU=ON L12  
L30 14 SEA ABB=ON PLU=ON L5  
L31 14 SEA ABB=ON PLU=ON (L30 OR L6)  
L32 14 SEA ABB=ON PLU=ON L31 NOT (PY>2003 OR AY>2003 OR PRY>2003)  
D BIB  
D BIB 5

FILE 'HCAPLUS' ENTERED AT 09:39:42 ON 15 AUG 2006

L33 11 SEA ABB=ON PLU=ON (L7 OR L13)

FILE 'REGISTRY' ENTERED AT 09:40:07 ON 15 AUG 2006

FILE 'STNGUIDE' ENTERED AT 09:40:23 ON 15 AUG 2006

FILE 'REGISTRY' ENTERED AT 09:43:09 ON 15 AUG 2006

L34 STRUCTURE UPLOADED  
D QUE L34  
L35 50 SEA SUB=L5 SSS SAM L34

FILE 'BIOSIS' ENTERED AT 09:45:25 ON 15 AUG 2006

L36 0 SEA ABB=ON PLU=ON L12

FILE 'EMBASE' ENTERED AT 09:45:32 ON 15 AUG 2006

L37 0 SEA ABB=ON PLU=ON L12

FILE 'CAPLUS' ENTERED AT 09:46:06 ON 15 AUG 2006

SAVE L6 LEESERCA/A TEMP

FILE 'REGISTRY' ENTERED AT 09:47:07 ON 15 AUG 2006

SAVE L12 LEESERSUB/A TEMP

=> file reg

FILE 'REGISTRY' ENTERED AT 09:47:48 ON 15 AUG 2006

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          W"/AU OR "MURPHY A Z"/AU OR "MURPHY AL"/AU OR "MURPHY ALISON"/A
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          OR L24 OR L25)) OR (L21 AND (L22 OR L23 OR L24 OR L25)) OR
  
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(L22 AND (L23 OR L24 OR L25)) OR (L23 AND (L24 OR L25)) OR  
(L24 AND L25)

=> d ibib abs 126 tot

L26 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:778003 HCAPLUS

TITLE: Transforming growth factor- $\beta$  receptor type 1  
(TGF $\beta$ RI) kinase activity but not p38 activation  
is required for TGF $\beta$ RI-induced myofibroblast  
differentiation and profibrotic gene expression

AUTHOR(S): Kapoun, Ann M.; Gaspar, Nicholas J.; Wang, Ying; Damm,  
Debby; Liu, Yu-Wang; O'Young, Gilbert; Quon, Diana;  
Lam, Andrew; Munson, Kimberly; Tran, Thomas-Toan; Ma,  
Jing Ying; **Murphy, Alison; Dugar,**  
**Sundeep; Chakravarty, Sarvajit;**  
Protter, Andrew A.; Wen, Fu-Qiang; Liu, Xiangde;  
Rennard, Stephen I.; Higgins, Linda Slanec

CORPORATE SOURCE: Scios Inc., Fremont, CA, USA  
SOURCE: Molecular Pharmacology (2006), 70(2), 518-531  
CODEN: MOPMA3; ISSN: 0026-895X

PUBLISHER: American Society for Pharmacology and Experimental  
Therapeutics

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Transforming growth factor- $\beta$  (TGF $\beta$ ) is a major mediator of  
normal wound healing and of pathol. conditions involving fibrosis, such as  
idiopathic pulmonary fibrosis. TGF $\beta$  also stimulates the  
differentiation of myofibroblasts, a hallmark of fibrotic diseases. In  
this study, we examined the underlying processes of TGF $\beta$ RI kinase  
activity in myofibroblast conversion of human lung fibroblasts using  
specific inhibitors of TGF $\beta$ RI (SD-208) and p38 mitogen-activated  
kinase (SD-282). We demonstrated that SD-208, but not SD-282, inhibited  
TGF $\beta$ -induced SMAD signaling, myofibroblast transformation, and  
collagen gel contraction. Furthermore, we extended our findings to a rat  
bleomycin-induced lung fibrosis model, demonstrating a significant  
decrease in the number of myofibroblasts at fibroblastic foci in animals  
treated with SD-208 but not those treated with SD-282. SD-208 also  
reduced collagen deposition in this in vivo model. Microarray anal. of  
human lung fibroblasts identified mol. fingerprints of these processes and  
showed that SD-208 had global effects on reversing TGF $\beta$ -induced genes  
involved in fibrosis, inflammation, cell proliferation, cytoskeletal  
organization, and apoptosis. These studies also revealed that although  
the p38 pathway may not be needed for appearance or disappearance of the  
myofibroblast, it can mediate a subset of inflammatory and fibrogenic  
events of the myofibroblast during the process of tissue repair and  
fibrosis. Our findings suggest that inhibitors such as SD-208 may be  
therapeutically useful in human interstitial lung diseases and pulmonary  
fibrosis.

L26 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:710531 HCAPLUS

TITLE: Inhibition of Growth and Metastasis of Mouse Mammary  
Carcinoma by Selective Inhibitor of Transforming  
Growth Factor- $\beta$  Type I Receptor Kinase In  
vivo

AUTHOR(S): Ge, Rongrong; Rajeev, Vaishali; Ray, Partha; Lattime,  
Edmund; Rittling, Susan; Medicherla, Satya; Protter,

Andy; **Murphy, Alison**; Chakravarty, Jit;  
**Dugar, Sundeep**; Schreiner, George; Barnard,  
 Nicola; Reiss, Michael

CORPORATE SOURCE: Departments of Internal Medicine and Surgery, The  
 Cancer Institute of New Jersey, and Department of  
 Pathology, University of Medicine and Dentistry of New  
 Jersey-Robert Wood Johnson Medical School, New  
 Brunswick, NJ, 08903, USA

SOURCE: Clinical Cancer Research (2006), 12(14, Pt. 1),  
 4315-4330  
 CODEN: CCREF4; ISSN: 1078-0432

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB PURPOSE: Transforming growth factor- $\beta$  (TGF- $\beta$ )  
 suppresses tumor development by inhibiting cellular proliferation,  
 inducing differentiation and apoptosis, and maintaining genomic integrity.  
 However, once tumor cells escape from the tumor-suppressive effects of  
 TGF- $\beta$ , they often constitutively overexpress and activate  
 TGF- $\beta$ , which may promote tumor progression by enhancing  
 invasion, metastasis, and angiogenesis and by suppressing antitumor  
 immunity. The purpose of this study was to test this hypothesis using  
 TGF- $\beta$  pathway antagonists. Exptl. Design: We examined the effects  
 of selective TGF- $\beta$  type I receptor kinase inhibitors, SD-093 and  
 SD-208, on two murine mammary carcinoma cell lines (R3T and 4T1) in vitro  
 and in vivo. RESULTS: Both agents blocked TGF- $\beta$ -induced  
 phosphorylation of the receptor-associated Smads, Smad2 and Smad3, in a  
 dose-dependent manner, with IC50 between 20 and 80 nmol/L.  
 TGF- $\beta$  failed to inhibit growth of these cell lines, but  
 stimulated epithelial-to-mesenchymal transdifferentiation, migration, and  
 invasiveness into Matrigel in vitro. These effects were inhibited by  
 SD-093, indicating that these processes are partly driven by  
 TGF- $\beta$ . Treatment of syngeneic R3T or 4T1 tumor-bearing mice  
 with orally given SD-208 inhibited primary tumor growth as well as the number  
 and size of metastases. In contrast, SD-208 failed to inhibit R3T tumor  
 growth or metastasis in athymic nude mice. Moreover, in vitro anti-4T1  
 cell cytotoxic T-cell responses of splenocytes from drug-treated animals  
 were enhanced compared with cells from control animals. In addition, SD-208  
 treatment resulted in a decrease in tumor angiogenesis. CONCLUSION:  
 TGF- $\beta$  type I receptor kinase inhibitors hold promise as novel  
 therapeutic agents for metastatic breast cancer.

REFERENCE COUNT: 87 THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:658534 HCAPLUS

DOCUMENT NUMBER: 145:137476

TITLE: A selective p38 $\alpha$  mitogen-activated protein  
 kinase inhibitor reverses cartilage and bone  
 destruction in mice with collagen-induced arthritis

AUTHOR(S): Medicherla, Satyanarayana; Ma, Jing Ying; Mangadu,  
 Ruban; Jiang, Yebin; Zhao, Jenny J.; Almirez, Ramona;  
 Kerr, Irene; Stebbins, Elizabeth G.; O'Young, Gilbert;  
 Kapoun, Ann M.; Luedtke, Gregory; **Chakravarty,**  
**Sarvajit**; **Dugar, Sundeep**; Genant, Harry  
 K.; Protter, Andrew A.

CORPORATE SOURCE: Scios Inc., Fremont, CA, USA

SOURCE: Journal of Pharmacology and Experimental Therapeutics  
 (2006), 318(1), 132-141

CODEN: JPETAB; ISSN: 0022-3565  
 PUBLISHER: American Society for Pharmacology and Experimental Therapeutics  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Destruction of cartilage and bone is a poorly managed hallmark of human rheumatoid arthritis (RA). P38 Mitogen-activated protein kinase (MAPK) has been shown to regulate key proinflammatory pathways in RA, including tumor necrosis factor  $\alpha$ , interleukin (IL)-1 $\beta$ , and cyclooxygenase-2, as well as the process of osteoclast differentiation. Therefore, we evaluated whether a p38 $\alpha$  MAPK inhibitor, indole-5-carboxamide (SD-282), could modulate cartilage and bone destruction in a mouse model of RA induced with bovine type II collagen [collagen-induced arthritis (CIA)]. In mice with early disease, SD-282 treatment significantly improved clin. severity scores, reduced bone and cartilage loss, and reduced mRNA levels of proinflammatory genes in paw tissue, including IL-1 $\beta$ , IL-6, and cyclooxygenase-2. Notably, SD-282 treatment of mice with advanced disease resulted in significant improvement in clin. severity scoring and paw swelling, a reversal in bone and cartilage destruction as assessed by histol., bone volume fraction and thickness, and three-dimensional image anal. These changes were accompanied by reduced osteoclast number and lowered levels of serum cartilage oligomeric matrix protein, a marker of cartilage breakdown. Thus, in a model of exptl. arthritis associated with significant osteolysis, p38 $\alpha$  MAPK inhibition not only attenuates disease progression but also reverses cartilage and bone destruction in mice with advanced CIA disease.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:488573 HCAPLUS

TITLE: Inhibition of p38 $\alpha$  MAPK enhances proteasome inhibitor-induced apoptosis of myeloma cells by modulating Hsp27, Bcl-XL, Mcl-1 and p53 levels in vitro and inhibits tumor growth in vivo

AUTHOR(S): Navas, T. A.; Nguyen, A. N.; Hideshima, T.; Reddy, M.; Ma, J. Y.; Haghnazari, E.; Henson, M.; Stebbins, E. G.; Kerr, I.; O'Young, G.; Kapoun, A. M.; Chakravarty, S.; Mavunkel, B.; Perumattam, J.; Luedtke, G.; Dugar, S.; Medicherla, S.; Protter, A. A.; Schreiner, G. F.; Anderson, K. C.; Higgins, L. S.

CORPORATE SOURCE: Scios, Inc., Fremont, CA, USA

SOURCE: Leukemia (2006), 20(6), 1017-1027

CODEN: LEUKED; ISSN: 0887-6924

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Inhibition of p38 kinase blocks the production of tumor-promoting factors in the multiple myeloma (MM) bone marrow microenvironment. Proteasome inhibitors MG132 and bortezomib have been shown to have direct cytotoxic effects on MM cells. We show that a selective inhibitor of p38 $\alpha$ , SCIO-469, enhances the ability of MG132 and bortezomib to induce the apoptosis of MM cells. Previously, we showed that p38 inhibition with SCIO-469 enhances MM cytotoxicity of bortezomib by inhibiting the transient expression and phosphorylation of Hsp27, a downstream target of p38. Here we show that continued treatment of MM cells with bortezomib leads to a SCIO-469-enhanced downregulation of Hsp27 and to increased MM

apoptosis. Furthermore, we show that p38 inhibition enhances the bortezomib-induced MM apoptosis by upregulation of p53 and downregulation of Bcl-XL and Mcl-1. In a mouse xenograft plasmacytoma model of MM, we found that inhibiting p38 augments the effects of bortezomib in decreasing MM tumor growth in vivo. Thus, in addition to its role in suppressing an activated MM microenvironment, co-treatment with a p38 inhibitor, such as SCIO-469, may enhance the cytotoxicity of bortezomib by modulating pro-apoptotic and anti-apoptotic factors in MM cells, suggesting great potential for co-therapy.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1351110 HCAPLUS

DOCUMENT NUMBER: 144:88316

TITLE: Preparation of azaindoles as inhibitors of p38 kinase

INVENTOR(S): Mavunkel, Babu J.; Perumattam, John J.; Lu, Qing;

*Dugar, Sundeep*; Goyal, Bindu; Wang, Dan X.;

*Chakravarty, Sarvajit*; Luedtke, Gregory R.;

Nashashibi, Imad; Tester, Richland; Tan, Xuefei

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 83 pp., Cont.-in-part of U.S. Ser. No. 683,656.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

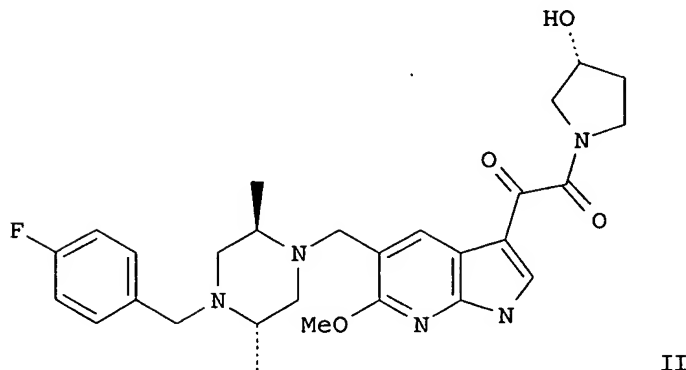
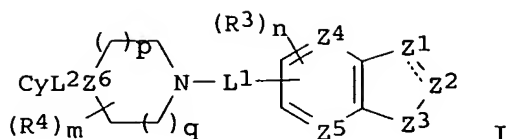
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005288299	A1	20051229	US 2005-107027	20050415
US 2004176598	A1	20040909	US 2003-683656	20031009
PRIORITY APPLN. INFO.:			US 2002-417599P	P 20021009
			US 2003-683656	A2 20031009

OTHER SOURCE(S): MARPAT 144:88316

GI



AB Title compds. [I; dotted line = optional double bond; 1 of Z1, Z2 = CQ, CR1Q, the other = CRR1, C(R1)2; Q = R1, WiCOXjY; W, X = (substituted) alkylene, alkenylene, alkynylene, heteroalkylene; i, j = 0, 1; Y = COR2, isostere; Z3 = NR7, O, S; Z4, Z5 = N, CH, CR3, or 1 of Z4, Z5 = C to which L1 is linked; ≥1 of Z4, Z5 = N; Z6 = N, CR5; L1, L2 = (substituted) alkylene, alkenylene, alkynylene, heteroalkylene; Cy = 1-2 (substituted) (fused) 3-7 membered ring(s); R1, R2, R5, R7 = H, R3; R3 = (substituted) alkyl, heteroalkyl, alkenyl, heteroalkenyl, alkynyl, heteroalkynyl, acyl, heteroacyl, aryl, heteroaryl, halo, etc.; R4 = R3, O, NCN, etc.; n = 0-2; m = 0-4; p, q = 0-2; p+k = 0-3], were prepared Thus, title compound (II) inhibited p38α with IC50 = 0.01 μM.

L26 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:638672 HCAPLUS

DOCUMENT NUMBER: 143:133391

TITLE: Preparation of pyridopyrimidones

INVENTOR(S): Chakravarty, Sarvajit; Dugar, Sundeep; Tester, Richland; Conte, Aurelia

PATENT ASSIGNEE(S): Scios Inc., USA

SOURCE: PCT Int. Appl., 12 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

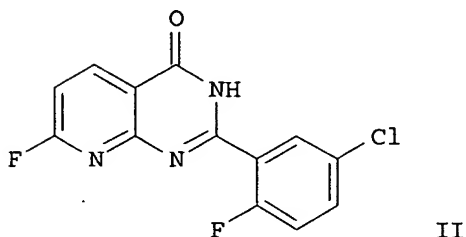
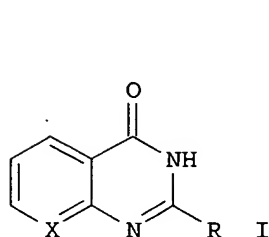
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005065416	A2	20050721	WO 2004-US44064	20041231
WO 2005065416	A3	20050915		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

US 2005176957 A1 20050811 US 2004-29139 20041231  
 PRIORITY APPLN. INFO.: US 2003-534057P P 20031231  
 OTHER SOURCE(S): CASREACT 143:133391; MARPAT 143:133391  
 GI



AB The present invention is directed to a process for making 2-substituted pyridopyrimidone derivs. I [R = (hetero)aryl, alkyl; X = N, CH]. In particular, 2-substituted pyridopyrimidones, e.g. II, are made through the single step reaction of suitable acid derivs., e.g. 2,6-difluoronicotinic acid, with desired derivs. of amidines, e.g. 2-fluoro-5-chlorobenzamidine.

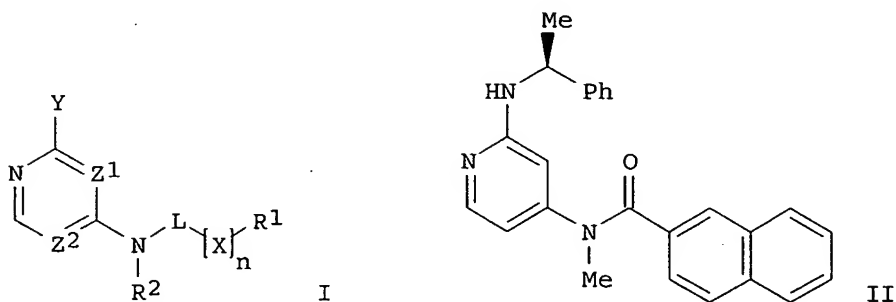
L26 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:324132 HCAPLUS  
 DOCUMENT NUMBER: 142:392427  
 TITLE: Preparation of N-heterocyclyl amides and sulfonamides as p38 kinase inhibitors  
 INVENTOR(S): Dugar, Sundeep; McEnroe, Glen  
 PATENT ASSIGNEE(S): Scios Inc., USA  
 SOURCE: PCT Int. Appl., 195 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005033072	A2	20050414	WO 2004-US32403	20040930
WO 2005033072	A3	20060112		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2540828	AA	20050414	CA 2004-2540828	20040930
EP 1675830	A2	20060705	EP 2004-789449	20040930



R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR  
 PRIORITY APPLN. INFO.: US 2003-507633P P 20030930  
 WO 2004-US32403 W 20040930  
 OTHER SOURCE(S): MARPAT 142:392427  
 GI



AB The title compds. I [R1 = alkyl, cycloalkyl, heterocycloalkyl, aryl; L = CO, SO2; X = O, CO, (un)substituted CH2, NH; n = 0-3; R2 = H, alkyl, aryl, etc.; Y = (un)substituted NH2, OH; one of Z1 and Z2 = CH, and the other is either CH or N], useful for inhibiting p38 kinase, were prepared E.g., a multi-step synthesis of (1S)-II, starting from 4-amino-2-chloropyridine and 2-naphthoyl chloride, was given. The compds. I were tested against p38 $\alpha$  kinase in the diluted whole blood assay (biol. data were given for representative compds. I). The pharmaceutical composition comprising the compound I is disclosed.

L26 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:324006 HCAPLUS

DOCUMENT NUMBER: 142:392425

TITLE: Preparation of 2-phenyl-N-4-pyridinyl-4-pteridinamines and related compounds as TGF- $\beta$  inhibitors

INVENTOR(S): Dugar, Sundeep; Chakravarty, Sarvajit; Murphy, Alison; Mcenroe, Glen; Conte, Aurelia; Perumattam, John J.

PATENT ASSIGNEE(S): Scios Inc., USA

SOURCE: PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005032481	A2	20050414	WO 2004-US32430	20040930
WO 2005032481	A3	20050616		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
SN, TD, TG

US 2005096333 A1 20050505 US 2004-957183 20040930  
PRIORITY APPLN. INFO.: US 2003-507910P P 20030930  
OTHER SOURCE(S): MARPAT 142:392425  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [A = (R1)m; B = (R2)n; C = Z5; D = Z6; E = Z7; F = Z8; m,  
n = 0-3; R1 = OH, SH, NH2, etc.; R2 = NH2, CONH2, R, etc.; R =  
(un)substituted alkyl, alkenyl, alkynyl, etc.; Z5, Z6, Z7, Z8 = N or CH  
with provisos] and their pharmaceutically acceptable salts were prepared  
For example, N-alkylation of 4-aminopyridine with 4-chloropteridine II,  
e.g., prepared from Me 3-amino-2-pyrazinecarboxylate in 3-steps, afforded  
pyridinylpteridinamine III in 36% yield. In TGF- $\beta$  inhibition assays,  
47-examples of compds. I exhibited IC50 values <5  $\mu$ M. Compds. I are  
claimed to be useful for the treatment of conditions characterized by  
enhanced TGF $\beta$  activity.

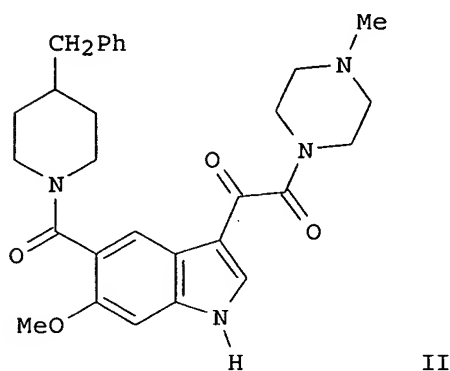
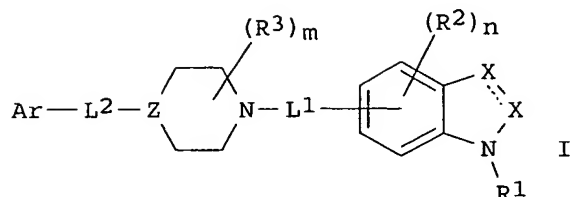
L26 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:232421 HCAPLUS  
DOCUMENT NUMBER: 142:316692  
TITLE: Preparation of indolylcarboxamide derivatives as  
inhibitors of p38 kinase  
INVENTOR(S): Mavunkel, Babu J.; *Chakravarty, Sarvajit*;  
Perumattam, John J.; *Dugar, Sundeep*; Lu,  
Qing; Liang, Xi  
PATENT ASSIGNEE(S): Scios, Inc., USA  
SOURCE: U.S., 65 pp., Cont.-in-part of U.S. 6,589,954.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6867209	B1	20050315	US 2000-575060	20000519
US 6130235	A	20001010	US 1998-128137	19980803
US 6340685	B1	20020122	US 1999-275176	19990324
US 6589954	B1	20030708	US 1999-316761	19990521
US 2003158417	A1	20030821	US 2002-146703	20020514
US 2003144520	A1	20030731	US 2002-157048	20020528
US 6864260	B2	20050308		
US 2003162970	A1	20030828	US 2002-156996	20020528
US 2003195355	A1	20031016	US 2002-156997	20020528
PRIORITY APPLN. INFO.:			US 1998-86531P	P 19980522
			US 1998-128137	A2 19980803
			US 1999-275176	A2 19990324
			US 1999-316761	A2 19990521

US 1999-154594P P 19990917  
US 2000-202608P P 20000509  
US 2000-575060 A1 20000519

OTHER SOURCE(S): MARPAT 142:316692  
GI



AB Title compds. I [X independently = CA, CR4A, CR5, CR52, NR6, or N; L1 = CO, SO2, or alkylene; L2 = (un)substituted-alkylene or -alkenylene; Ar = (un)substituted aryl group with substituents consisting of alkyl, alkenyl, halo, CN, etc.; Z = N or CR7 wherein R7 = H or non-interfering substituent; R1 = H, alkyl, alkenyl, alkynyl, aryl, arylalkyl, etc.; R2 independently = halo, alkyl, OH, alkoxy, etc.; R3 independently = CN, CF3, NO2, alkyl, aryl, acyl, etc.; R4 = H, halo, alkyl or alkenyl; R5 independently = H, halo, alkyl, OH, etc.; R6 = H, alkyl, alkenyl, aryl, acyl, aroyl, etc.; A = -WiCOXjY wherein Y is COR8 wherein R8 = H, (un)substituted-alkyl, -alkenyl, -alkynyl, etc.; W and X = (un)substituted-alkylene, -alkenylene, -alkynylene; Y = tetrazole, 1,2,3-triazole, 1,2,4-triazole, or imidazole and each of i and j independently = 0 or 1; m = 0-4; n = 0-3], and their pharmaceutically acceptable salts are prepared and disclosed as useful for treatment of rheumatoid arthritis. Thus, e.g., II, was prepared by carbonylation of 6-methoxy-(4-benzylpiperidinyl)-indole-5-carboxamide with oxalyl chloride and subsequent amination using 4-methylpiperazine. ELISA assays for evaluation of inhibition of p38 kinase by I revealed that all compds. of the invention possessed IC50 values in the range of 0.1-1.5  $\mu$ M. I as inhibitors of p38 kinase should prove useful in the treatment of rheumatoid arthritis.

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:191633 HCAPLUS

TITLE: p38  $\alpha$  MAP kinase inhibitors: From discovery to the clinic

AUTHOR(S): *Dugar, Sundeep*; Mavunkel, Babu; *Chakravarty, Sarvajit*; Perumattam, John; Luedtke, Greg; Lu, Qing; Chen, Zheng; Xu, Yong-jing; Protter, Andrew; Schreiner, George; Almirez, Ramona; Scott, Brian; Laney, Maureen; Henson, Margaret; Lewicki, John; Moore, Adrian; Lee, Sarah; Brahn, Earnest; Liu, David

CORPORATE SOURCE: Scios, Inc, Fremont, CA, 94555, USA

SOURCE: Abstracts of Papers, 229th ACS National Meeting, San Diego, CA, United States, March 13-17, 2005 (2005), MEDI-300. American Chemical Society: Washington, D. C.

CODEN: 69GQMP

DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English

AB P38 $\alpha$  MAP kinase is an intracellular soluble serine threonine kinase which is activated in response to stress, growth factors and cytokines, such as IL-1 $\beta$  and TNF- $\alpha$ . Its activation has been shown to further activate proteins and transcription factors that lead to the production of several key pro-inflammatory and inflammatory cytokines. P38 $\alpha$  MAP kinase has an important patho-physiol. role in diseases, such as rheumatoid arthritis, where chronic inflammation is said to play a causal role. In recent years there have been several reports of efforts to find small mol. inhibitors of this enzyme as potential therapy in several disease areas. This presentation describes the SAR, in-vitro and in-vivo characterization of a class of highly specific, indole based piperidine amide inhibitors of p38 $\alpha$ .

L26 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:1029578 HCAPLUS

DOCUMENT NUMBER: 142:132714

TITLE: p38 Inhibition attenuates the pro-inflammatory response to C-reactive protein by human peripheral blood mononuclear cells

AUTHOR(S): Lim, Moon Y.; Wang, Hui; Kapoun, Ann M.; O'Connell, Maile; O'Young, Gilbert; Brauer, Heather Ann; Luedtke, Gregory R.; *Chakravarty, Sarvajit*; *Dugar, Sundeep*; Schreiner, George S.; Protter, Andrew A.; Higgins, Linda S.

CORPORATE SOURCE: Scios Inc., Fremont, CA, 94555, USA

SOURCE: Journal of Molecular and Cellular Cardiology (2004), 37(6), 1111-1114

CODEN: JMCDDY; ISSN: 0022-2828

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An active role for C-reactive protein (CRP) in inflammatory vascular diseases has been recently suggested. Monocytes play an important role in vascular pathol. and are activated by p38 mitogen activated protein kinase (MAPK) dependent mechanisms in many inflammatory settings. Therefore, we investigated whether CRP directly promotes a pro-inflammatory phenotype in human peripheral blood mononuclear cells (HPBMC) via p38 MAPK signaling. CRP exposure leads to a rapid phosphorylation of p38 MAPK in HPBMC. CRP-induced p38 kinase activity in HPBMC was blocked by treatment with an

inhibitor of p38 kinase, SD-282. CRP-induced the expression of tissue factor protein and the secretion of IL-6, IL-8, IL-1 $\beta$ , TNF $\alpha$  and PGE2. Co-exposure to CRP and SD-282 blocked the secretion of these pro-inflammatory and pro-thrombotic mediators. CRP treatment elevated IL-6, IL-8, IL-1 $\beta$ , TNF $\alpha$ , COX-2 and TF mRNA expression. These effects of CRP also required p38 activity, since SD-282 blocked mRNA induction of each. Taken together these data suggest a mechanistic relationship between p38 MAPK signaling and CRP-induced pro-inflammatory and pro-thrombotic activities in HPBMC. Thus, p38 inhibition may represent a novel approach to attenuate inflammation and its consequences in cardiovascular disease.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:1024814 HCAPLUS

DOCUMENT NUMBER: 142:196206

TITLE: Transforming Growth Factor  $\beta$  Receptor II Kinase Inhibitor Down-Regulates Cytokine Secretion and Multiple Myeloma Cell Growth in the Bone Marrow Microenvironment

AUTHOR(S): Hayashi, Toshiaki; Hideshima, Teru; Nguyen, Aaron N.; Munoz, Olivier; Podar, Klaus; Hamasaki, Makoto; Ishitsuka, Kenji; Yasui, Hiroshi; Richardson, Paul; **Chakravarty, Sarvajit; Murphy, Alison**; Chauhan, Dharminder; Higgins, Linda S.; Anderson, Kenneth C.

CORPORATE SOURCE: Jerome Lipper Multiple Myeloma Center, Department of Medical Oncology, Dana-Farber Cancer Institute, Department of Medicine, Dana-Farber Cancer Institute, Boston, MA, 02115, USA

SOURCE: Clinical Cancer Research (2004), 10(22), 7540-7546  
CODEN: CCREF4; ISSN: 1078-0432

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Transforming growth factors (TGFs) have pleiotropic biol. effects on tumor cells and their environment. In multiple myeloma (MM), the authors have reported that bone marrow stromal cells (BMSCs) from MM patients produce more TGF- $\beta$ 1 than BMSCs from healthy donors, which in turn induces interleukin (IL)-6 secretion. The authors show here that the TGF- $\beta$  receptor I kinase inhibitor SD-208 decreases secretion of both IL-6 and vascular endothelial growth factor (VEGF) from BMSCs, as well as tumor cell growth triggered by MM cell adhesion to BMSCs. Cytokine production and MM cell proliferation triggered by TGF- $\beta$ 1 or adhesion to BMSCs were examined in the presence or absence of SD-208. Effects of SD-208 on TGF- $\beta$ 1-induced signaling pathways triggering IL-6 and VEGF transcription in BMSCs were also delineated. SD-208 inhibits not only transcription but also secretion of both IL-6 and VEGF from BMSCs triggered by either TGF- $\beta$ 1 or adhesion of MM cells to BMSCs. Moreover, SD-208 decreased tumor cell growth triggered by MM cell adhesion to BMSCs. SD-208 works, at least in part, by blocking TGF- $\beta$ 1-triggered nuclear accumulation of Smad2/3 and hypoxia-inducible factor 1 $\alpha$ , as well as related production of IL-6 and VEGF, resp. Thus, SD-208 inhibits production of cytokines mediating MM cell growth, survival, drug resistance, and migration in the BM milieu, thereby providing the preclin. rationale for clin. evaluation of SD-208 to improve patient outcome in MM.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:857329 HCAPLUS

DOCUMENT NUMBER: 141:332209

TITLE: Preparation of bicyclic pyrimidine inhibitors of TGF- $\beta$ 

INVENTOR(S): Dugar, Sundeep; Chakravarty, Sarvajit; Conte, Aurelia; Axon, Jonathan; Mcenroe, Glenn

PATENT ASSIGNEE(S): Scios Inc., USA

SOURCE: PCT Int. Appl., 83 pp.

CODEN: PIXXD2

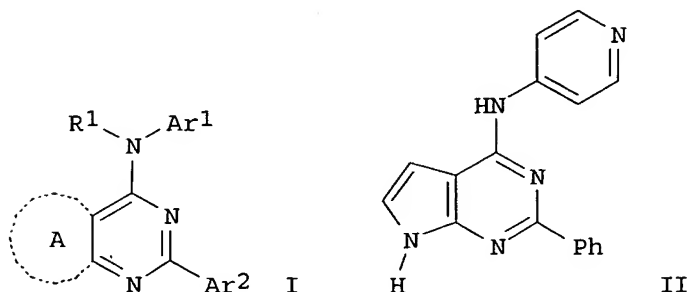
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087056	A2	20041014	WO 2004-US9300	20040326
WO 2004087056	A3	20050224		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2520465	AA	20041014	CA 2004-2520465	20040326
US 2005004143	A1	20050106	US 2004-811428	20040326
EP 1608631	A2	20051228	EP 2004-758392	20040326
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
PRIORITY APPLN. INFO.:			US 2003-458982P	P 20030328
			WO 2004-US9300	W 20040326
OTHER SOURCE(S):		MARPAT 141:332209		
GI				



AB Title compds. I [R<sup>1</sup> = H, (un)substituted-alkyl, -alkenyl, -alkynyl; Ar<sup>1</sup> and Ar<sup>2</sup> independently = (un)substituted aromatic or heteroarom. moiety; Ring

A is (un)substituted, (un)saturated or aromatic and contains 4-7 members, wherein

each member independently = C, N, O, or S], as well as their pharmaceutically acceptable salts, are prepared and disclosed as being useful for treating subjects with conditions ameliorated by inhibition of transforming growth factor- $\beta$  (TGF- $\beta$ ) activity. Thus, e.g., II was prep'd by cyclocondensation of benzamidine hydrochloride with Et 2-cyano-4,4-diethoxybutyrate to form 2-phenylpyrrolo[2,3-d]pyrimidone which was chlorinated and substituted with 4-aminopyridine. In TGF- $\beta$  assays, I were found to possess IC<sub>50</sub> values ranging from 0.0145-16.141  $\mu$ M.

L26 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:792540 HCAPLUS

DOCUMENT NUMBER: 142:211908

TITLE: p38 $\alpha$  Mitogen-Activated Protein Kinase Inhibition Improves Cardiac Function and Reduces Myocardial Damage in Isoproterenol-Induced Acute Myocardial Injury in Rats

AUTHOR(S): Li, Zhihe; Tran, Thomas-Toan; Ma, Jing Ying; O'Young, Gilbert; Kapoun, Ann M.; *Chakravarty, Sarvajit*; *Dugar, Sundeep*; Schreiner, George; Protter, Andrew A.

CORPORATE SOURCE: Department of Pharmacology and Preclinical Research, Scios Inc., Fremont, CA, 6500, USA

SOURCE: Journal of Cardiovascular Pharmacology (2004), 44(4), 486-492

CODEN: JPCPDT; ISSN: 0160-2446

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

AB P38 mitogen-activated protein (MAP) kinase is activated during ischemic/hypoxic myocardial injury. However, the role of activated p38 MAP kinase on cardiac function after myocardial injury is not well understood. In the present study, we investigated the cardioprotective effects of p38 MAP kinase inhibition in a rat model of acute myocardial injury, induced by s.c. injection of isoproterenol (ISO, 20 mg/kg/d for 3 days). A synthetic p38 $\alpha$  MAP kinase inhibitor, SD-282 (40 mg/kg) or vehicle (0.25% Tween 80 in saline) was given i.p. twice a day for 3 days, concomitant with ISO treatment. Cardiac function, systolic blood pressure, gene expression including collagen I and III, fibronectin and COX-2, and the myocardial injury were analyzed. Results showed that administration of SD-282 remarkably improved ISO-induced reduction of cardiac function with increases in ejection fraction ( $P < 0.001$ ), cardiac output ( $P < 0.05$ ), stroke volume ( $P < 0.001$ ), and cardiac index ( $P < 0.01$ ). SD-282 abolished ISO-induced reduction of systolic blood pressure (106.7 $\pm$ 2.2 vs. 123.1 $\pm$ 5.3 mm Hg,  $P < 0.05$ ). The ISO-induced expression of COX-2, collagen I and III, and fibronectin genes was reduced significantly ( $P < 0.05$  in all cases) by administration of SD-282. The myocardial injury induced by ISO was significantly reduced by the treatment of SD-282 as judged by the reduction of myocardial necrosis. Data suggest that p38 $\alpha$  MAP kinase may be involved in the pathogenesis of cardiac dysfunction in ischemic myocardial injury. Inhibition of this enzyme may improve cardiac function and protect myocardium from ischemic/hypoxic injury that occurs during ischemic heart disease.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:750916 HCAPLUS  
 DOCUMENT NUMBER: 141:393361  
 TITLE: Peripheral and central p38 MAPK mediates capsaicin-induced hyperalgesia  
 AUTHOR(S): Sweitzer, S. M.; Peters, M. C.; Ma, J. Y.; Kerr, I.; Mangadu, R.; **Chakravarty, S.**; **Dugar, S.**; Medicherla, S.; Protter, A. A.; Yeomans, D. C.  
 CORPORATE SOURCE: Department of Anesthesia, Stanford University School of Medicine, Stanford, CA, 94305, USA  
 SOURCE: Pain (2004), 111(3), 278-285  
 CODEN: PAINDB; ISSN: 0304-3959  
 PUBLISHER: Elsevier Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The stress-activated mitogen-activated protein kinase (MAPK) p38 is emerging as an important mediator of pain. The present study examined the possible involvement of peripheral and spinal p38 MAPK in capsaicin-induced thermal hyperalgesia. Topical capsaicin produced phosphorylation of p38 MAPK in the skin from the affected hindpaw as well as the corresponding lumbar spinal cord in a time dependent manner. Topical capsaicin produced robust C-fiber mediated thermal hyperalgesia that was inhibited by systemic, local peripheral, or central intrathecal pre-treatment with the p38 MAPK inhibitor, SD-282. I.p. SD-282 (10-60 mg/kg) significantly and dose-dependently attenuated capsaicin-induced C-fiber mediated thermal hyperalgesia. Similarly, 0.1-5 mg/kg s.c. SD-282 in the hindpaw dose-dependently attenuated capsaicin-induced thermal hyperalgesia. Intrathecal administration of 1 µg SD-282 was also anti-hyperalgesic in this model. Functionally, SD-282 decreased capsaicin-induced release of calcitonin gene related peptide in an in vitro skin release assay, consistent with a role for p38 MAPK in peripheral nerve function. These results suggest that p38 MAPK plays a role in the development of hyperalgesic states, exerting effects both centrally in the spinal cord and peripherally in sensory C fibers.  
 REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:658081 HCAPLUS  
 TITLE: Discovery and biological evaluation of p38α MAP kinase inhibitor SX-011  
 AUTHOR(S): Lu, Qing; Mavunkel, Babu; **Chakravarty, Sarvajit**; Perumattam, John; Luedtke, Greg; Chen, Zheng; Xu, Yong-jing; **Dugar, Sundeep**; Protter, Andrew; Schreiner, George; Almirez, Ramona; Scott, Brian; Laney, Maureen; Henson, Margaret; Lewicki, John; Moore, Adrian; Lee, Sarah; Brahn, Earnest; Liu, David  
 CORPORATE SOURCE: Scios, Inc, Fremont, CA, 94555, USA  
 SOURCE: Abstracts of Papers, 228th ACS National Meeting, Philadelphia, PA, United States, August 22-26, 2004 (2004), MEDI-217. American Chemical Society: Washington, D. C.  
 CODEN: 69FTZ8  
 DOCUMENT TYPE: Conference; Meeting Abstract  
 LANGUAGE: English  
 AB P38α MAP kinase is an intracellular soluble serine threonine kinase which is activated in response to stress, growth factors and cytokines, such as IL-1β and TNF-α. Its activation has been shown to



further activate proteins and transcription factors that lead to the production of several key pro-inflammatory and inflammatory cytokines. P38 $\alpha$  MAP kinase has an important patho-physiol. role in diseases, such as rheumatoid arthritis, where chronic inflammation is said to play a causal role. In recent years there have been several reports of efforts to find small mol. inhibitors of this enzyme as potential therapy in several disease areas. This presentation describes the SAR, in-vitro and in-vivo characterization of a representative (SX-011) from a class of highly specific, indole based piperidine amide inhibitors of p38 $\alpha$  of the general structure I.

L26 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:619571 HCAPLUS

DOCUMENT NUMBER: 141:204904

TITLE: Targeting endogenous transforming growth factor  $\beta$  receptor signaling in SMAD4-deficient human pancreatic carcinoma cells inhibits their invasive phenotype1  
AUTHOR(S): Subramanian, Gayathri; Schwarz, Roderich E.; Higgins, Linda; McEnroe, Glenn; Chakravarty, Sarvajit; Dugar, Sundeep; Reiss, Michael.

CORPORATE SOURCE: Departments of Internal Medicine (Medical Oncology), The Cancer Institute of New Jersey, University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School, New Brunswick, NJ, 08903, USA

SOURCE: Cancer Research (2004), 64(15), 5200-5211

CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Transforming growth factor- $\beta$  (TGF- $\beta$ ) suppresses tumor formation by blocking cell cycle progression and maintaining tissue homeostasis. In pancreatic carcinomas, this tumor suppressive activity is often lost by inactivation of the TGF- $\beta$ -signaling mediator, Smad4. The authors found that human pancreatic carcinoma cell lines that have undergone deletion of MADH4 constitutively expressed high endogenous levels of phosphorylated receptor-associated Smad proteins (pR-Smad2 and pR-Smad3), whereas Smad4-pos. lines did not. These elevated pR-Smad levels could not be attributed to a decreased dephosphorylation rate nor to increased expression of TGF- $\beta$  type I (T $\beta$ R-I) or type II (T $\beta$ R-II) receptors. Although minimal amts. of free bioactive TGF- $\beta$ 1 and TGF- $\beta$ 2 were detected in conditioned medium, treatment with a pan-specific (but not a TGF- $\beta$ 3 specific) TGF- $\beta$ -neutralizing antibody and with anti- $\alpha$ V $\beta$ 6 integrin antibody decreased steady-state pSmad2 levels and activation of a TGF- $\beta$ -inducible reporter gene in neighboring cells, resp. Thus, activation of TGF- $\beta$  at the cell surface was responsible for the increased autocrine endogenous and paracrine signaling. Blocking T $\beta$ R-I activity using a selective kinase inhibitor (SD-093) strongly decreased the in vitro motility and invasiveness of the pancreatic carcinoma cells without affecting their growth characteristics, morphol., or the subcellular distribution of E-cadherin and F-actin. Moreover, exogenous TGF- $\beta$  strongly stimulated in vitro invasiveness of BxPC-3 cells, an effect that could also be blocked by SD-093. Thus, the motile and invasive properties of Smad4-deficient pancreatic cancer cells are at least partly driven by activation of endogenous TGF- $\beta$  signaling. Therefore, targeting the T $\beta$ R-I kinase represents a potentially powerful novel therapeutic approach for the treatment of this disease.

REFERENCE COUNT: 87 THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:471693 HCAPLUS

DOCUMENT NUMBER: 141:167694

TITLE: Selective inhibitors of type I receptor kinase block cellular transforming growth factor- $\beta$  signaling

AUTHOR(S): Ge, Rongrong; Rajeev, Vaishali; Subramanian, Gayathri; Reiss, Kim A.; Liu, David; Higgins, Linda; Joly, Alison; *Dugar, Sundeep*; Chakravarty, Jit; Henson, Margaret; *McEnroe, Glenn*; Schreiner, George; Reiss, Michael

CORPORATE SOURCE: Division of Medical Oncology, Department of Internal Medicine, UMDNJ-Robert Wood Johnson Medical School and The Cancer Institute of New Jersey, New Brunswick, NJ, USA

SOURCE: Biochemical Pharmacology (2004), 68(1), 41-50  
CODEN: BCPA6; ISSN: 0006-2952

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Transforming growth factor (TGF $\beta$ ) is a 25-kDa dimeric polypeptide that plays a key role in a variety of physiol. processes and disease states. Blocking TGF $\beta$  signaling represents a potentially powerful and conceptually novel approach to the treatment of disorders in which the signaling pathway is constitutively activated, such as cancer, chronic inflammation with fibrosis and select immune disorders. In this paper, the authors describe the biol. properties of a novel series of quinazoline-derived inhibitors of the type I transforming growth factor receptor kinase (T $\beta$ KIs) that bind to the ATP-binding site and keep the kinase in its inactive conformation. These compds. effectively inhibited TGF $\beta$ -induced Smad2 phosphorylation in cultured cells in vitro with an IC<sub>50</sub> between 20 and 300 nM. Moreover, T $\beta$ KIs were able to broadly block TGF $\beta$ -induced reporter gene activation. Finally, T $\beta$ KIs inhibited TGF $\beta$ -mediated growth inhibition of normal murine mammary epithelial cells (NMuMG) and mink lung epithelial cells (Mv1Lu), and TGF $\beta$ -induced epithelial-mesenchymal transdifferentiation (EMT) of NMuMG cells. Thus, these chemical T $\beta$ KIs have the potential to be further developed as anti-cancer and -fibrosis agents. In addition, they represent valuable new tools for dissecting the biochem. mechanisms of TGF $\beta$  signal transduction and understanding the role of TGF $\beta$  signaling pathways in different physiol. and disease processes.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:420665 HCAPLUS

DOCUMENT NUMBER: 142:4714

TITLE: Antinociceptive action of a p38 $\alpha$  MAPK inhibitor, SD-282, in a diabetic neuropathy model

AUTHOR(S): Sweitzer, Sarah M.; Medicherla, Satyanarayana; Almirez, Ramona; *Dugar, Sundeep*; *Chakravarty, Sarvajit*; Shumilla, Jennifer A.; Yeomans, David C.; Protter, Andrew A.

CORPORATE SOURCE: Department of Anesthesia, Stanford University School of Medicine, Stanford, CA, 94305-5117, USA

SOURCE: Pain (2004), 109(3), 409-419

CODEN: PAINDB; ISSN: 0304-3959

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Diabetes can induce a bewildering list of sensory changes, including alteration in pain sensitivity. Painful diabetic neuropathy is refractory to most common analgesics. This study examined the effect of a p38 $\alpha$  MAPK inhibitor, SD-282, on mech. allodynia, thermal hyperalgesia, and formalin-evoked nociception in streptozotocin-induced diabetic rats. Four-week diabetic rats exhibited mech. allodynia, decreased mech. thresholds, and C- and A $\delta$ -fiber mediated thermal hyperalgesia. Mech. and thermal responses were measured in diabetic rats following acute and repeated i.p. administration of vehicle, 15 or 45 mg/kg SD-282. Mech. allodynia was reversed by acute and repeated administration of 15 and 45 mg/kg SD-282. Repeated administration of 15 or 45 mg/kg SD-282 prevented the exacerbation of C-, but not A $\delta$ -fiber, mediated thermal hyperalgesia. Repeated administration of 45 mg/kg SD-282 attenuated flinching behaviors during the quiescent period and the second phase of the formalin response in diabetic rats. Acute and repeated administration of 15 or 45 mg/kg SD-282 had no effect on mech., thermal or formalin responses in age-matched control rats. These results indicate a potential therapeutic value of p38 $\alpha$  MAPK inhibitors in the treatment of aberrant pain sensitivity produced by diabetes.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:252350 HCAPLUS

DOCUMENT NUMBER: 140:264537

TITLE: Pyrimidine and triazine compounds as inhibitors of TGF $\beta$ , preparation thereof, and therapeutic use

INVENTOR(S): Axon, Jonathan; Chakravarty, Sarvajit; Dugar, Sundeep; McEnroe, Glen; Murphy, Alison

PATENT ASSIGNEE(S): Scios Inc., USA

SOURCE: PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004024159	A1	20040325	WO 2003-US28590	20030910
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2498460	AA	20040325	CA 2003-2498460	20030910
AU 2003272324	A1	20040430	AU 2003-272324	20030910
US 2004132730	A1	20040708	US 2003-660115	20030910
EP 1549316	A1	20050706	EP 2003-754501	20030910
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			

BR 2003014196	A	20050726	BR 2003-14196	20030910
CN 1694708	A	20051109	CN 2003-824984	20030910
JP 2006503043	T2	20060126	JP 2004-536518	20030910
PRIORITY APPLN. INFO.:			US 2002-409870P	P 20020910
			WO 2003-US28590	W 20030910

OTHER SOURCE(S): MARPAT 140:264537

AB Substituted pyrimidines and triazines are useful in the treatment to conditions associated with enhanced TGF $\beta$  activity. Compound preparation is included.

L26 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:220433 HCAPLUS

DOCUMENT NUMBER: 140:270879

TITLE: Preparation of piperidinylcarbonyl- and piperazinylcarbonylindolamines as p38 kinase inhibitors.

INVENTOR(S): *Chakravarty, Sarvajit; Dugar, Sundeep*; Lu, Qing; Luedtke, Gregory R.; Mavunkel, Babu J.; Perumatam, John Joseph; Tester, Richland Scios Inc., USA

PATENT ASSIGNEE(S):  
SOURCE: PCT Int. Appl., 117 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

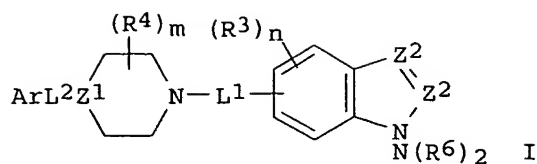
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004022712	A2	20040318	WO 2003-US27761	20030903
WO 2004022712	A3	20040429		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2497408	AA	20040318	CA 2003-2497408	20030903
AU 2003268464	A1	20040329	AU 2003-268464	20030903
US 2004142940	A1	20040722	US 2003-654840	20030903
EP 1545528	A2	20050629	EP 2003-749429	20030903
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2006506346	T2	20060223	JP 2004-534595	20030903
PRIORITY APPLN. INFO.:			US 2002-408493P	P 20020903
			WO 2003-US27761	W 20030903

OTHER SOURCE(S): MARPAT 140:270879

GI



AB Title compds. [I; 1 Z2 = CA, the other = CR1; R1, R2, R5, R6 = H, noninterfering substituent; A = WiCOXjY; Y = COR2; W, X = spacer of 2-6Å; i, j = 0, 1; 2 R6 may form a 5-6 membered ring; m = 0-4; n = 0-3; L1, L2 = linker; R4 = noninterfering substituent; Z1 = N, CR5; Ar = (substituted) (fused) Ph, thienyl], were prepared for treatment of pro-inflammation response (no data). Thus, 1-(4-fluorobenzyl)-2S,5R-dimethylpiperazine, 6-chloroindole-5-carboxylic acid (preparation given), TBTU, and Et3N were stirred in DMF overnight to give 92% amide, which in CH2Cl2 at 0° was treated with (COCl)2 followed by stirring at room temperature for 5 h. Pyrrolidine was added followed by stirring for 1 h to give 71% 1-[6-chloro-5-[4-(4-fluorobenzyl)-2R,5S-dimethylpiperazine-1-carbonyl]-1H-indol-3-yl]-2-pyrrolidin-1-ylethane-1,2-dione. This was stirred with NaH in THF for 30 min.; O-(diphenylphosphinyl)hydroxylamine was added followed by stirring for 10 h to give 1-[1-amino-6-chloro-5-[4-(4-fluorobenzyl)-2R,5S-dimethylpiperazine-1-carbonyl]-1H-indol-3-yl]-2-pyrrolidin-1-ylethane-1,2-dione.

L26 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:931342 HCAPLUS

DOCUMENT NUMBER: 140:791

TITLE: Treatment of fibroproliferative disorders using TGF-β inhibitors

INVENTOR(S): **Chakravarty, Sarvajit; Dugar, Sundeep;** Higgins, Linda S.; Kapoun, Ann M.; Liu, David Y.; Schreiner, George F.; Protter, Andrew A.; Tran, Thomas-Toan

PATENT ASSIGNEE(S): Scios, Inc., USA

SOURCE: PCT Int. Appl., 114 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003097615	A1	20031127	WO 2003-US15514	20030516
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003229305	A1	20031202	AU 2003-229305	20030516
US 2004038856	A1	20040226	US 2003-440428	20030516
EP 1511738	A1	20050309	EP 2003-726892	20030516

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
PRIORITY APPLN. INFO.:

US 2002-381720P P 20020517  
US 2003-440428 A 20030516  
WO 2003-US15514 W 20030516

OTHER SOURCE(S): MARPAT 140:791

AB The invention concerns methods of treating fibroproliferative disorders associated with TGF- $\beta$  signaling, by administering non-peptide small mol. inhibitors of TGF- $\beta$  specifically binding to the type I TGF- $\beta$  receptor (TGF $\beta$ -R1). Preferably, the inhibitors are quinazoline derivs. The invention also concerns methods for reversing the effect of TGF- $\beta$  mediated cell activation on the expression of a gene associated with fibrosis, comprising contacting a cell or tissue in which the expression of such gene is altered as a result of TGF- $\beta$  mediated cell activation, with a non-peptide small mol. inhibitor of TGF- $\beta$ , specifically binding a TGF $\beta$ -R1 receptor kinase present in the cell or tissue.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:665552 HCAPLUS

DOCUMENT NUMBER: 139:345323

TITLE: Indole-based heterocyclic inhibitors of p38 $\alpha$  MAP kinase: designing a conformationally restricted analogue

AUTHOR(S): Mavunkel, Babu J.; *Chakravarty, Sarvajit*;  
Perumattam, John J.; Luedtke, Gregory R.; Liang, Xi;  
Lim, Don; Xu, Yong-jin; Laney, Maureen; Liu, David Y.;  
Schreiner, George F.; Lewicki, John A.; *Dugar, Sundeep*

CORPORATE SOURCE: Scios Inc., Sunnyvale, CA, 94086, USA  
SOURCE: Bioorganic & Medicinal Chemistry Letters (2003),  
13(18), 3087-3090

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:345323

AB P38 $\alpha$  Mitogen Activated Protein Kinase (MAP kinase) is an intracellular soluble serine threonine kinase. P38 $\alpha$  kinase is activated in response to cellular stresses, growth factors and cytokines such as interleukin-1 (IL-1) and tumor necrosis factor alpha (TNF- $\alpha$ ). The central role of p38 $\alpha$  activation in settings of both chronic and acute inflammation has led efforts to find inhibitors of this enzyme as possible therapies for diseases such as rheumatoid arthritis, where p38 $\alpha$  activation is thought to play a causal role. Herein, we report structure-activity relationship studies on a series of indole-based heterocyclic inhibitors that led to the design and identification of a new class of p38 $\alpha$  inhibitors.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:899335 HCAPLUS

DOCUMENT NUMBER: 139:78095

TITLE: Inhibitors of p38 $\alpha$  MAP kinase

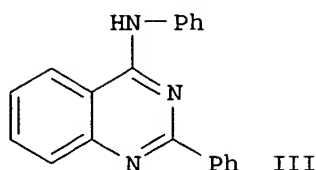
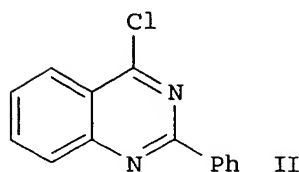
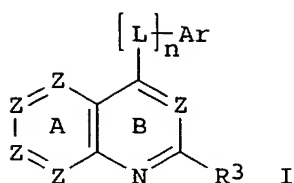
AUTHOR(S): *Chakravarty, Sarvajit; Dugar, Sundeep*

CORPORATE SOURCE: Scios Inc., Sunnyvale, CA, 94086, USA  
 SOURCE: Annual Reports in Medicinal Chemistry (2002), 37, 177-186  
 CODEN: ARMCBI; ISSN: 0065-7743  
 PUBLISHER: Elsevier Science  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: English  
 AB A review on the structural and mechanistic basis for inhibition of p38 $\alpha$  MAP (mitogen activated protein) kinase. X-ray structures and structure-activity relationship studies have led to the design of selective and potent p38 $\alpha$  kinase inhibitors. These inhibitors provide the opportunity for the development of agents targeting a variety of human diseases through the central role of p38 $\alpha$  kinase in acute and chronic inflammation.  
 REFERENCE COUNT: 98 THERE ARE 98 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:845560 HCAPLUS  
 DOCUMENT NUMBER: 137:353051  
 TITLE: Preparation of quinazolines as TGF- $\beta$  and/or p38- $\alpha$  kinase inhibitors  
 INVENTOR(S): Chakravarty, Sarvajit; Dugar, Sundeep; Perumattam, John J.; Schreiner, George F.; Liu, David Y.; Lewicki, John A.  
 PATENT ASSIGNEE(S): Scios, Inc., USA  
 SOURCE: U.S., 37 pp., Cont.-in-part of U.S. 6,184,226.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6476031	B1	20021105	US 1999-383825	19990827
US 6184226	B1	20010206	US 1998-141916	19980828
US 6277989	B1	20010821	US 2000-525034	20000314
US 2003069248	A1	20030410	US 2001-969936	20011002
US 2002161010	A1	20021031	US 2001-972582	20011005
US 6903096	B2	20050607		
US 2005171123	A1	20050804	US 2005-53121	20050207
US 2005220784	A1	20051006	US 2005-136242	20050523
PRIORITY APPLN. INFO.:			US 1998-141916	A2 19980828
			US 1999-383825	A3 19990827
			US 2001-969936	B1 20011002
			US 2001-972582	A3 20011005
OTHER SOURCE(S):		MARPAT 137:353051		
GI				



AB Title compds. I [R3 = (un)substituted aromatic; Ar = (un)substituted monocyclic or polycyclic aromatic; L = S(CR22)m, NR1SO2(CR22)1, SO2(CR22)m, etc.; Z = CR2, N with the provisos that no more than two Z positions in ring A are N and wherein two adjacent Z positions in ring A cannot be N; R2 = H, alkyl, alkenyl, etc.; l = 0-3; m = 0-4; n = 1] and their pharmaceutically acceptable salts were prepared For example, condensation of chloroquinazoline II and 4-aminopyridine afforded claimed quinazoline III. In p38- $\alpha$  kinase inhibition studies, 9-examples of compds. I exhibited IC50 values in the range of 0.1-1.5  $\mu$ M. Also, the specificity of compds. I for p38- $\alpha$  was assessed by their ability to inhibit other kinases, e.g., p38- $\gamma$  JNK1, PKA, PKC, PK(PKD), cck2 and EGF-R, with IC50 values ranging from 4.2 - >500  $\mu$ M. Compds. I are useful anti-inflammatory agents and in the treatment of fibroproliferative diseases.

REFERENCE COUNT: 80 THERE ARE 80 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:428896 HCAPLUS

DOCUMENT NUMBER: 137:6088

TITLE: Preparation of indolecarboxamides as p38- $\alpha$  inhibitors

INVENTOR(S): Dugar, Sundeep; Mavunkel, Babu J.; Luedtke, Gregory R.; Mcenroe, Glen

PATENT ASSIGNEE(S): Scios Inc., USA

SOURCE: PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

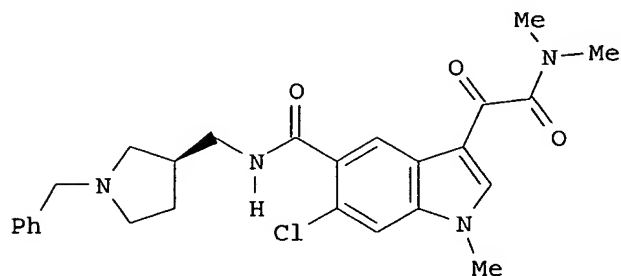
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044168	A2	20020606	WO 2001-US43439	20011120
WO 2002044168	A3	20030522		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,



UG, UZ, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,  
 GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,  
 GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 CA 2429382 AA 20020606 CA 2001-2429382 20011120  
 AU 2002037657 A5 20020611 AU 2002-37657 20011120  
 US 2003100588 A1 20030529 US 2001-989991 20011120  
 US 6890938 B2 20050510  
 EP 1339708 A2 20030903 EP 2001-986461 20011120  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2004536779 T2 20041209 JP 2002-546538 20011120  
 US 2005171183 A1 20050804 US 2005-98905 20050404  
 PRIORITY APPLN. INFO.: US 2000-252163P P 20001120  
 US 2001-989991 A1 20011120  
 WO 2001-US43439 W 20011120  
 OTHER SOURCE(S): MARPAT 137:6088  
 GI



AB Title compds. were prepared as p38- $\alpha$  inhibitors (no data). Thus,  
 6-chloro-1-methyl-1H-indole-5-carboxylic acid was amidated by  
 (R)-3-aminomethyl-1-benzylpyrrolidine followed by acylation and amidation  
 to give title compound I.

L26 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:842127 HCAPLUS

DOCUMENT NUMBER: 134:17503

TITLE: Preparation of 5-[4-benzylpiperidinyl(piperazinyl)]-  
 indolecarboxamides as inhibitors of p38 kinase

INVENTOR(S): Mavunkel, Babu J.; *Chakravarty, Sarvajit*;  
 Perumattam, John J.; *Dugar, Sundeep*; Lu,  
 Qing; Liang, Xi

PATENT ASSIGNEE(S): Scios Inc., USA

SOURCE: PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000071535	A1	20001130	WO 2000-US14003	20000519
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,				

CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6589954	B1	20030708	US 1999-316761	19990521
CA 2372567	AA	20001130	CA 2000-2372567	20000519
EP 1178983	A1	20020213	EP 2000-939322	20000519

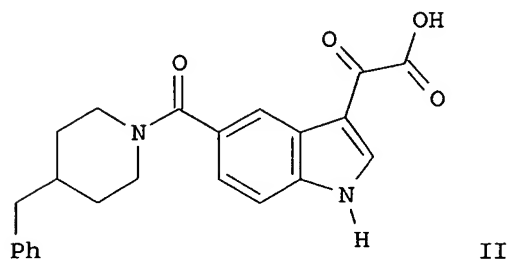
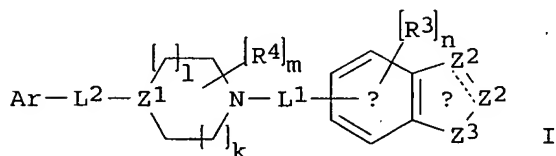
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

BR 2000011274	A	20020226	BR 2000-11274	20000519
NZ 515285	A	20040130	NZ 2000-515285	20000519
AU 772295	B2	20040422	AU 2000-54424	20000519
RU 2278115	C2	20060620	RU 2001-134501	20000519
BG 106091	A	20020628	BG 2001-106091	20011108
HR 2001000854	A1	20030430	HR 2001-854	20011119
NO 2001005655	A	20020118	NO 2001-5655	20011120
AU 2004203356	A1	20040819	AU 2004-203356	20040722

PRIORITY APPLN. INFO.:

US 1999-316761	A	19990521
US 1999-154594P	P	19990917
US 2000-202608P	P	20000509
US 1998-86531P	P	19980522
US 1998-128137	A2	19980803
US 1999-275176	A2	19990324
WO 2000-US14003	W	20000519

OTHER SOURCE(S): MARPAT 134:17503  
GI



AB The title compds. [I; one Z2 = CA, CR8A and the other = CR1, CR12, NR6, N (wherein R1, R6, R8 = H, noninterfering substituent; A = WiCOXjY; Y = COR2, an isostere; R2 = H, noninterfering substituent; W, X = spacer of 2-6Å; i, j = 0-1); Z3 = NR7, O; R3 = noninterfering substituent; n = 0-3; L1, L2 = linker; R4 = noninterfering substituent; m = 0-4; Z1 = CR5,

N (R5 = H, noninterfering substituent); l, k = 0-2, wherein the sum of l and k = 0-3; Ar = aryl substituted with 0-5 noninterfering substituents, wherein two noninterfering substituents can form a fused ring; the distance between the atom of Ar linked to L2 and the center of the  $\alpha$  ring is 4.5-24Å] which inhibit p38- $\alpha$  kinase (biol. data given), were prepared Thus, treating 6-methoxy-(4-benzylpiperidinyl)-indole-5-carboxamide with oxalyl chloride in CH<sub>2</sub>Cl<sub>2</sub> afforded the indole-5-carboxamide II.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:161275 HCAPLUS

DOCUMENT NUMBER: 132:194387

TITLE: Preparation of quinazolines as p38- $\alpha$  kinase and TGF- $\beta$  inhibitors

INVENTOR(S): Chakravarty, Sarvajit; Dugar, Sundeep; Perumattam, John J.; Schreiner, George F.; Liu, David Y.; Lewicki, John A.

PATENT ASSIGNEE(S): Scios Inc., USA

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

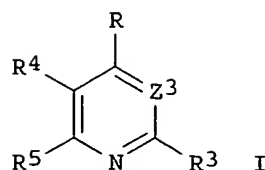
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012497	A2	20000309	WO 1999-US19846	19990827
WO 2000012497	A3	20000629		
W:	AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, EE, GE, HU, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6184226	B1	20010206	US 1998-141916	19980828
CA 2342250	AA	20000309	CA 1999-2342250	19990827
AU 9962413	A1	20000321	AU 1999-62413	19990827
AU 771947	B2	20040408		
EP 1107959	A2	20010620	EP 1999-949568	19990827
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
BR 9913648	A	20020102	BR 1999-13648	19990827
JP 2002523502	T2	20020730	JP 2000-567525	19990827
PRIORITY APPLN. INFO.:			US 1998-141916	A 19980828
			WO 1999-US19846	W 19990827

OTHER SOURCE(S): MARPAT 132:194387

GI

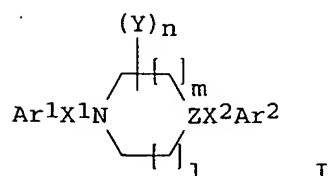


AB Title compds. [I; R = ZR1; R1 = (un)substituted cyclic (hetero)aliphatic group, -(hetero)aryl; R3 = noninterfering substituent (sic); R4R5 = atoms to complete a 6-membered aromatic ring containing 0, 1, or 2 nonadjacent N atoms and noninterfering substituent(s) (sic); z = bond or linker (sic); Z3 = CR2 or N; R2 = noninterfering substituent (sic)] were prepared Thus, prepn of, e.g., 4-(4-pyridinylamino)-2-phenylquinazoline was described. Data for biol. activity of I were given.

L26 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:161119 HCAPLUS  
DOCUMENT NUMBER: 132:203174  
TITLE: Inhibitors of p38- $\alpha$  kinase, preparation thereof, and therapeutic use  
INVENTOR(S): Goehring, R. Richard; Luedtke, Gregory R.; Mavunkel, Babu J.; Chakravarty, Sarvajit; Dugar, Sundeep; Schreiner, George F.; Liu, David Y.; Lewicki, John A.  
PATENT ASSIGNEE(S): Scios Inc., USA  
SOURCE: PCT Int. Appl., 75 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012074	A2	20000309	WO 1999-US19845	19990827
WO 2000012074	A3	20000831		
W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, EE, GE, HU, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2342251	AA	20000309	CA 1999-2342251	19990827
AU 9957936	A1	20000321	AU 1999-57936	19990827
AU 772477	B2	20040429		
EP 1107758	A2	20010620	EP 1999-945316	19990827
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9913654	A	20011127	BR 1999-13654	19990827
JP 2002523448	T2	20020730	JP 2000-567192	19990827
PRIORITY APPLN. INFO.:				
			US 1998-98219P	P 19980828
			US 1999-125343P	P 19990319
			WO 1999-US19845	W 19990827
OTHER SOURCE(S): MARPAT 132:203174				
GI				



AB Methods are provided for treating conditions mediated by p38- $\alpha$  kinase using compds. I (Z = N, CR1; R1 = noninterfering substituent; X1, X2 = linker; Ar1, Ar2 = (un)substituted C1-20 hydrocarbyl (at least one of Ar1 and Ar2 = (un)substituted aryl), with proviso that when X2 = CH2 or an isostere thereof, X1 = CO or an isostere thereof, and Ar2 = (un)substituted Ph, Ar1 is other than (un)substituted indolyl, benzimidazolyl or benzotriazolyl, and wherein (un)substituted Ph is not (un)substituted indolyl, benzimidazolyl, or benzotriazolyl; Y = noninterfering substituent; n, m = 0-4; l = 0-3) or a pharmaceutically acceptable salt or pharmaceutical composition thereof. Preparation of compds. is described. Compds. of the invention may be used to treat p38- $\alpha$  kinase-mediated conditions.

L26 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2000:44887 HCAPLUS  
 DOCUMENT NUMBER: 132:278695  
 TITLE: Strategies for rapid generation of small molecule libraries on a solid support  
 AUTHOR(S): Perumattam, John; *Chakravarty, Sarvajit; McEnroe, Glenn*  
 CORPORATE SOURCE: Scios Inc., Sunnyvale, CA, 94086, USA  
 SOURCE: Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries: Peptides, Proteins and Nucleic Acids--Small Molecule Organic Chemical Diversity, Collected Papers, International Symposium, 5th, London, Sept. 2-6, 1997 (1999), Meeting Date 1997, 123-126. Editor(s): Epton, Roger. Mayflower Scientific Ltd.: Kingswinford, UK.  
 CODEN: 680EAA  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 AB A symposium report on the generation of ABC-type libraries from amines, anhydrides, and resin-bound amino acids.  
 REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1998:303623 HCAPLUS  
 DOCUMENT NUMBER: 129:40700  
 TITLE: Solid phase synthesis of combinatorial libraries using anhydrides as templates  
 AUTHOR(S): Perumattam, John; *Chakravarty, Sarvajit; Mcenroe, Glenn A.*; Goehring, R. Richard; Mavunkel, Babu; Suravajjala, Sandhya; Smith, Whitney W.; Chen, Baili  
 CORPORATE SOURCE: Scios Inc., Sunnyvale, CA, 94086, USA  
 SOURCE: Molecular Diversity (1998), Volume Date 1997-1998, 3(2), 121-128  
 CODEN: MODIF4; ISSN: 1381-1991  
 PUBLISHER: Kluwer Academic Publishers  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A simple and general approach to the synthesis of chemical libraries based on a universal anhydride template allows the preparation of large nos. of compds. Various cyclic/acyclic amines, primary/secondary amines, differently protected bifunctional amines were used as nucleophiles to react with anhydrides. The free carboxylic acid generated was then coupled with

solid-bound amines. The facile and rapid generation of compds. through this multi-component assembly can be accomplished in a combinatorial parallel synthesis.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:162838 HCAPLUS

TITLE: Solid phase synthesis of combinatorial libraries using anhydrides as templates (part II).

AUTHOR(S): Perumattam, John; *Chakravarty, Sarvajit; McEnroe, Glenn*

CORPORATE SOURCE: Scios Inc., Sunnyvale, CA, 94086, USA

SOURCE: Book of Abstracts, 213th ACS National Meeting, San Francisco, April 13-17 (1997), ORGN-576. American Chemical Society: Washington, D. C.  
CODEN: 64AOAA

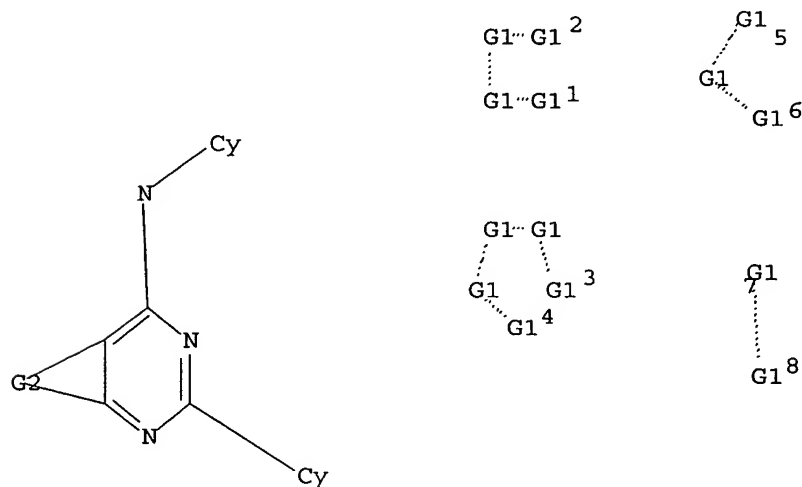
DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English

AB ABC type libraries are rapidly generated using readily available components such as anhydrides (A), amine nucleophiles (B), and resin-bound amines (C). Sym. diamines are reacted with chlorotriptyl resin where one amine is protected as result of attachment to the resin leaving the other amine available for coupling reaction with various acids. The diverse acids are prepared by the reaction of anhydrides with amines as reported earlier.1. A method is developed for the simultaneous synthesis of hundreds of amino compds. using array synthesis which results in a single well-defined compound per well..

=> d que 133

L3 STR



G1 C,O,S,N

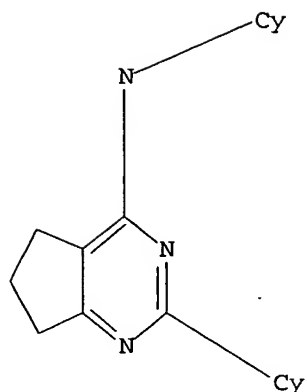
G2 [@1-@2], [@3-@4], [@5-@6], [@7-@8]

Structure attributes must be viewed using STN Express query preparation.

L5 2753 SEA FILE=REGISTRY SSS FUL L3

L7 1 SEA FILE=CAPLUS ABB=ON PLU=ON US2004-811428/AP

L10 STR



Structure attributes must be viewed using STN Express query preparation.

L12 55 SEA FILE=REGISTRY SUB=L5 SSS FUL L10  
 L13 11 SEA FILE=CAPLUS ABB=ON PLU=ON L12  
 L33 11 SEA FILE=HCAPLUS ABB=ON PLU=ON (L7 OR L13)

=> d ibib abs hitstr l33 tot

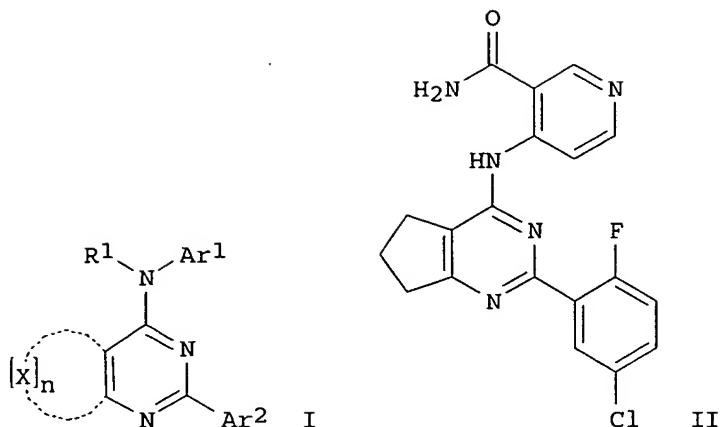
L33 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2006:319101 HCAPLUS  
 DOCUMENT NUMBER: 144:370119  
 TITLE: Preparation of HCV inhibiting bi-cyclic pyrimidines  
 INVENTOR(S): Simmen, Kenneth Alan; Lin, Tse-I.; Lenz, Oliver;  
 Surleraux, Dominique Louis Nestor Ghislain; Raboisson,  
 Pierre Jean-Marie Bernard  
 PATENT ASSIGNEE(S): Tibotec Pharmaceuticals Ltd., Ire.  
 SOURCE: PCT Int. Appl., 88 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006035061	A1	20060406	WO 2005-EP54912	20050929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: EP 2004-104815 A 20040930  
 EP 2005-102810 A 20050408

OTHER SOURCE(S): MARPAT 144:370119

GI



AB The title compds. I [the fused ring bridging positions 5 and 6 of the pyrimidine ring is an optionally substituted saturated, unsatd. or aromatic ring containing 4-7 members; X = N, O, S; n = 0-3; Ar<sup>1</sup>, Ar<sup>2</sup> = (un)substituted 5-12 membered (hetero)aryl containing one or more O, S, and/or N; R<sup>1</sup> = H, (un)substituted alkyl, alkenyl, alkynyl; with proviso], useful as inhibitors of HCV replication, were prepared E.g., a multi-step synthesis of II, starting from Me 2-oxocyclopentanecarboxylate and 2-fluoro-5-chlorobenzamidine, was given. II showed EC<sub>50</sub> of 0.4  $\mu$ M in HCV replicon assay. In addition, the present invention relates to the use of compds. I in pharmaceutical compns. aimed to treat or combat HCV infections, and processes for preparation of such pharmaceutical compns. The present invention also concerns combinations of the present bi-cyclic pyrimidines with other anti-HCV agents.

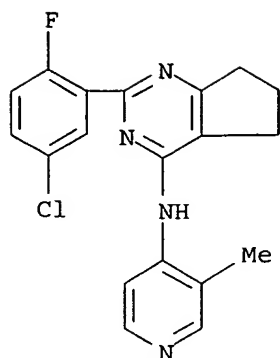
IT 773138-62-8P 773139-11-0P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of HCV inhibiting bi-cyclic pyrimidines)

RN 773138-62-8 HCAPLUS

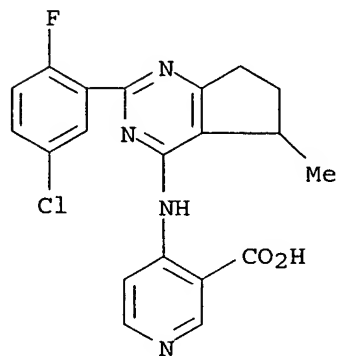
CN 5H-Cyclopentapyrimidin-4-amine, 2-(5-chloro-2-fluorophenyl)-6,7-dihydro-N-(3-methyl-4-pyridinyl)- (9CI) (CA INDEX NAME)





RN 773139-11-0 HCAPLUS

CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5-methyl-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)



IT 773138-64-0P 773138-82-2P 773138-98-0P

773139-05-2P 773139-07-4P 773139-27-8P

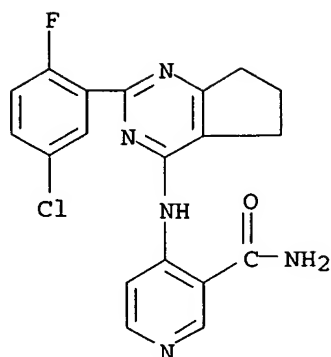
773139-31-4P 773139-35-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of HCV inhibiting bi-cyclic pyrimidines)

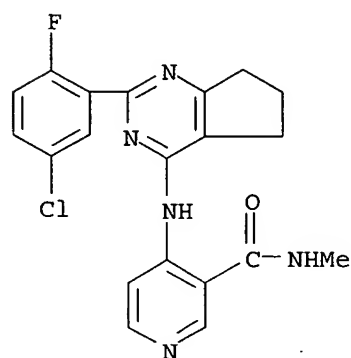
RN 773138-64-0 HCAPLUS

CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)



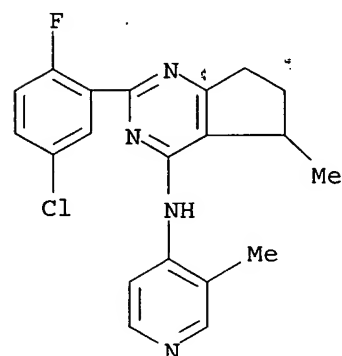
RN 773138-82-2 HCAPLUS

CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-methyl- (9CI) (CA INDEX NAME)



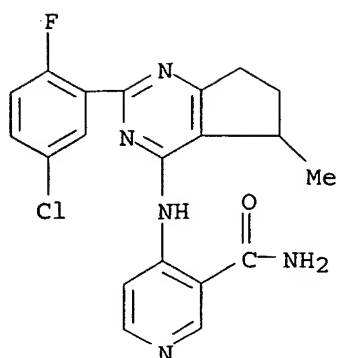
RN 773138-98-0 HCAPLUS

CN 5H-Cyclopentapyrimidin-4-amine, 2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5-methyl-N-(3-methyl-4-pyridinyl)- (9CI) (CA INDEX NAME)



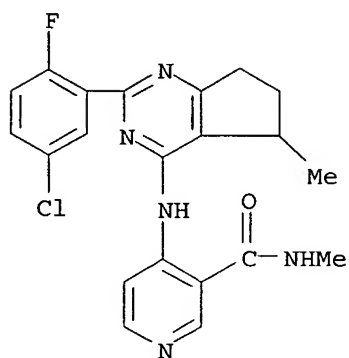
RN 773139-05-2 HCAPLUS

CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5-methyl-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)



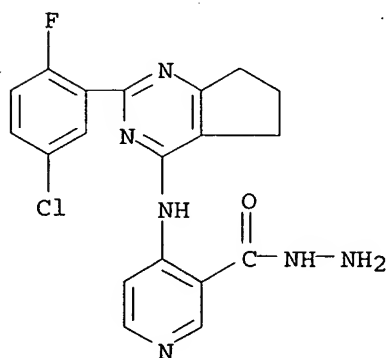
RN 773139-07-4 HCAPLUS

CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5-methyl-5H-cyclopentapyrimidin-4-yl]amino]-N-methyl- (9CI) (CA INDEX NAME)



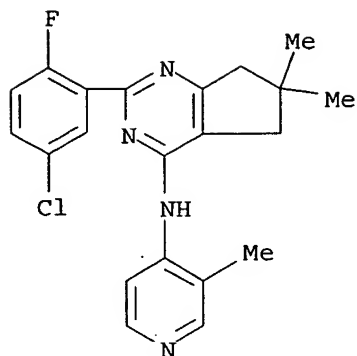
RN 773139-27-8 HCAPLUS

CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-, hydrazide (9CI) (CA INDEX NAME)

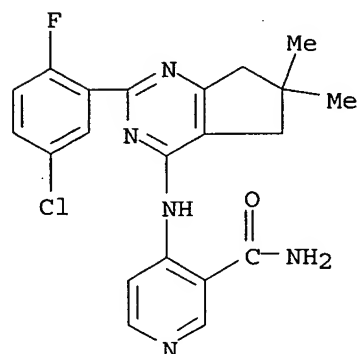


RN 773139-31-4 HCAPLUS

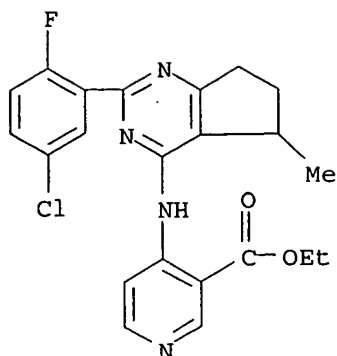
CN 5H-Cyclopentapyrimidin-4-amine, 2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-N-(3-methyl-4-pyridinyl)- (9CI) (CA INDEX NAME)



RN 773139-35-8 HCAPLUS  
 CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)

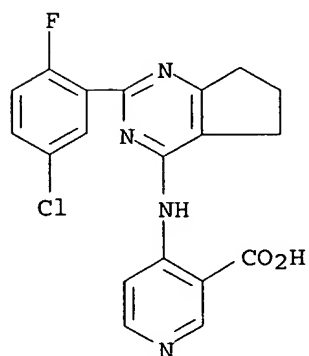


IT 773139-09-6P 773140-00-4P 773140-26-4P  
 773140-27-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of HCV inhibiting bi-cyclic pyrimidines)  
 RN 773139-09-6 HCAPLUS  
 CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5-methyl-5H-cyclopentapyrimidin-4-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



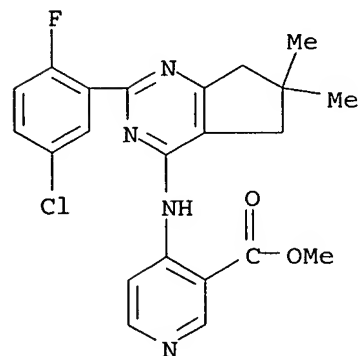
RN 773140-00-4 HCAPLUS

CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)



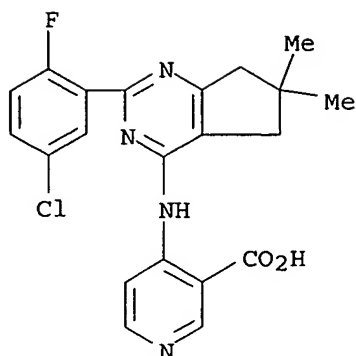
RN 773140-26-4 HCAPLUS

CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-5H-cyclopentapyrimidin-4-yl]amino]-, methyl ester (9CI) (CA INDEX NAME)



RN 773140-27-5 HCAPLUS

CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:857329 HCAPLUS

DOCUMENT NUMBER: 141:332209

TITLE: Preparation of bicyclic pyrimidine inhibitors of TGF- $\beta$

INVENTOR(S): Dugar, Sundeep; Chakravarty, Sarvajit; Conte, Aurelia; Axon, Jonathan; Mcenroe, Glenn

PATENT ASSIGNEE(S): Scios Inc., USA

SOURCE: PCT Int. Appl., 83 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

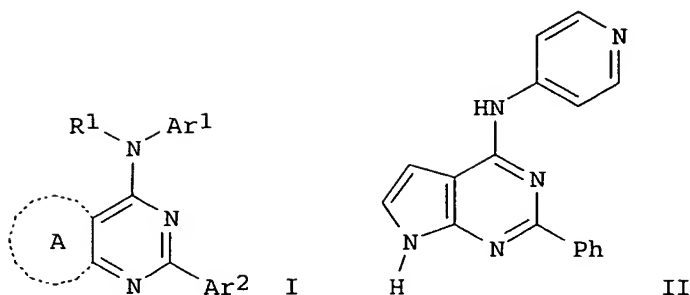
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087056	A2	20041014	WO 2004-US9300	20040326
WO 2004087056	A3	20050224		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2520465	AA	20041014	CA 2004-2520465	20040326
US 2005004143	A1	20050106	US 2004-811428	20040326 <--
EP 1608631	A2	20051228	EP 2004-758392	20040326
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
PRIORITY APPLN. INFO.:			US 2003-458982P	P 20030328
			WO 2004-US9300	W 20040326

OTHER SOURCE(S): MARPAT 141:332209

GI



AB Title compds. I [R1 = H, (un)substituted-alkyl, -alkenyl, -alkynyl; Ar1 and Ar2 independently = (un)substituted aromatic or heteroarom. moiety; Ring A is (un)substituted, (un)saturated or aromatic and contains 4-7 members, wherein

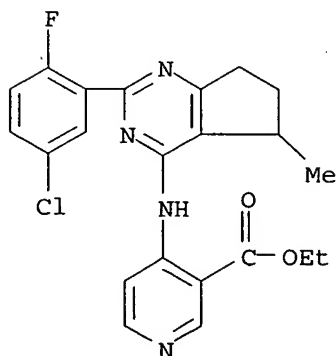
each member independently = C, N, O, or S], as well as their pharmaceutically acceptable salts, are prepared and disclosed as being useful for treating subjects with conditions ameliorated by inhibition of transforming growth factor- $\beta$  (TGF- $\beta$ ) activity. Thus, e.g., II was prepd by cyclocondensation of benzamidine hydrochloride with Et 2-cyano-4,4-diethoxybutyrate to form 2-phenylpyrrolo[2,3-d]pyrimidone which was chlorinated and substituted with 4-aminopyridine. In TGF- $\beta$  assays, I were found to possess IC50 values ranging from 0.0145-16.141  $\mu$ M.

IT 773139-09-6P 773139-11-0P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (drug candidate; preparation of bicyclic pyrimidines as inhibitors of transforming growth factor- $\beta$ )

RN 773139-09-6 HCAPLUS

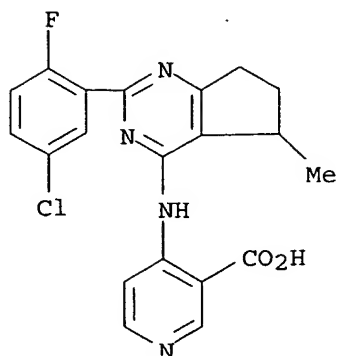
CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5-methyl-5H-cyclopentapyrimidin-4-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 773139-11-0 HCAPLUS

CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5-

methyl-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)



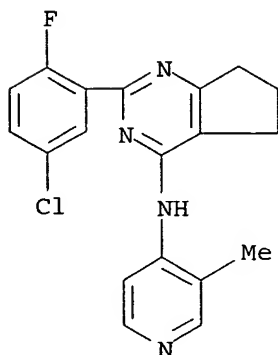
IT 773138-62-8P 773138-64-0P 773138-76-4P  
 773138-82-2P 773138-84-4P 773138-86-6P  
 773138-94-6P 773138-96-8P 773138-98-0P  
 773139-05-2P 773139-07-4P 773139-15-4P  
 773139-17-6P 773139-19-8P 773139-21-2P  
 773139-23-4P 773139-27-8P 773139-31-4P  
 773139-33-6P 773139-35-8P 773139-37-0P  
 773139-39-2P 773139-41-6P 773139-43-8P  
 773139-45-0P 773139-47-2P 773139-49-4P  
 773139-51-8P 773139-53-0P 773139-55-2P  
 773139-57-4P 773139-59-6P 773139-61-0P  
 773139-65-4P 773139-67-6P 773139-73-4P  
 773139-75-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of bicyclic pyrimidines as inhibitors of transforming growth factor- $\beta$ )

RN 773138-62-8 HCAPLUS

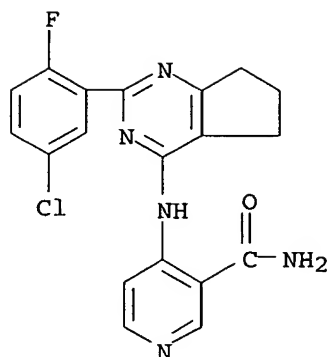
CN 5H-Cyclopentapyrimidin-4-amine, 2-(5-chloro-2-fluorophenyl)-6,7-dihydro-N-(3-methyl-4-pyridinyl)- (9CI) (CA INDEX NAME)



RN 773138-64-0 HCAPLUS

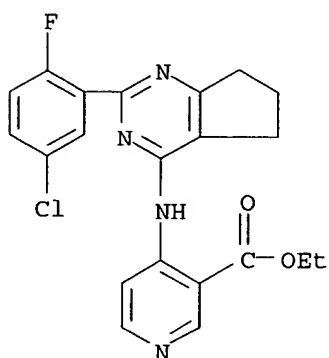
CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)





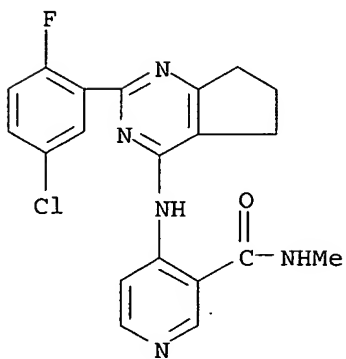
RN 773138-76-4 HCAPLUS

CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 773138-82-2 HCAPLUS

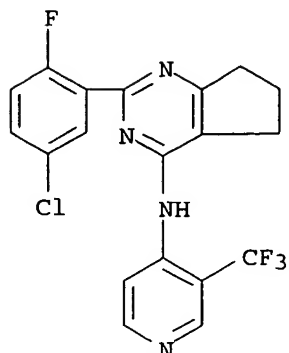
CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-methyl- (9CI) (CA INDEX NAME)



RN 773138-84-4 HCAPLUS

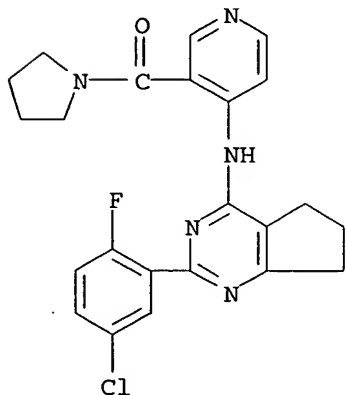
CN 5H-Cyclopentapyrimidin-4-amine, 2-(5-chloro-2-fluorophenyl)-6,7-dihydro-N-

[3-(trifluoromethyl)-4-pyridinyl]- (9CI) (CA INDEX NAME)



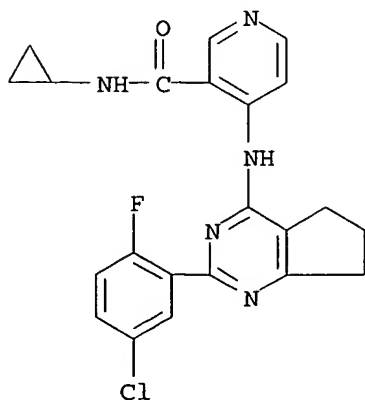
RN 773138-86-6 HCAPLUS

CN Pyrrolidine, 1-[[4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-3-pyridinyl]carbonyl]- (9CI) (CA INDEX NAME)



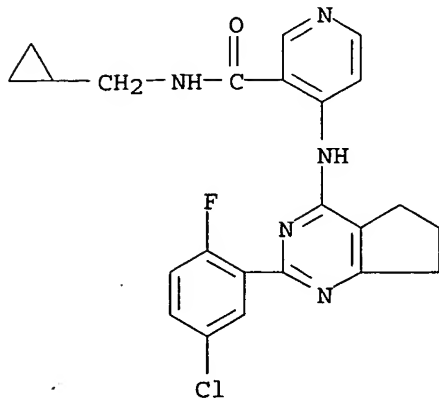
RN 773138-94-6 HCAPLUS

CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-cyclopropyl- (9CI) (CA INDEX NAME)



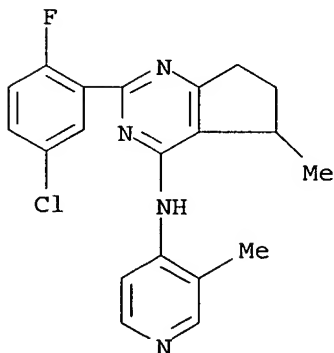
RN 773138-96-8 HCAPLUS

CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-(cyclopropylmethyl)- (9CI) (CA INDEX NAME)



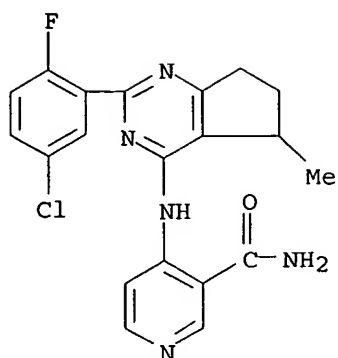
RN 773138-98-0 HCAPLUS

CN 5H-Cyclopentapyrimidin-4-amine, 2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5-methyl-N-(3-methyl-4-pyridinyl)- (9CI) (CA INDEX NAME)



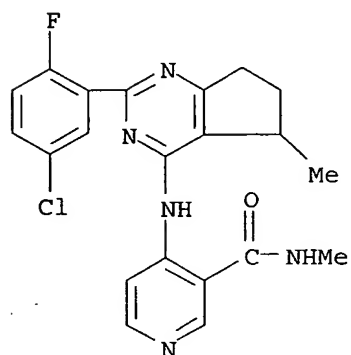
RN 773139-05-2 HCAPLUS

CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5-methyl-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)



RN 773139-07-4 HCAPLUS

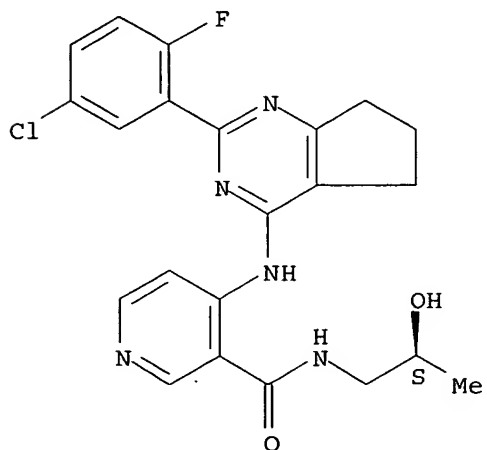
CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5-methyl-5H-cyclopentapyrimidin-4-yl]amino]-N-methyl- (9CI) (CA INDEX NAME)



RN 773139-15-4 HCAPLUS

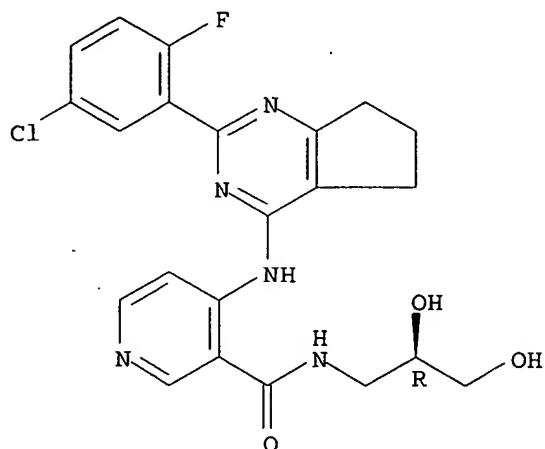
CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-[(2S)-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

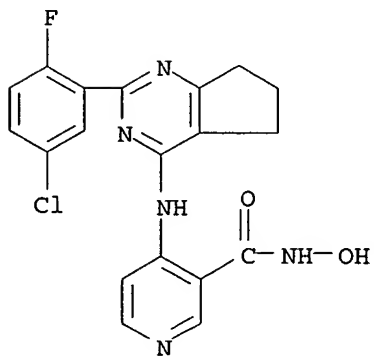


RN 773139-17-6 HCAPLUS  
 CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-[(2R)-2,3-dihydroxypropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

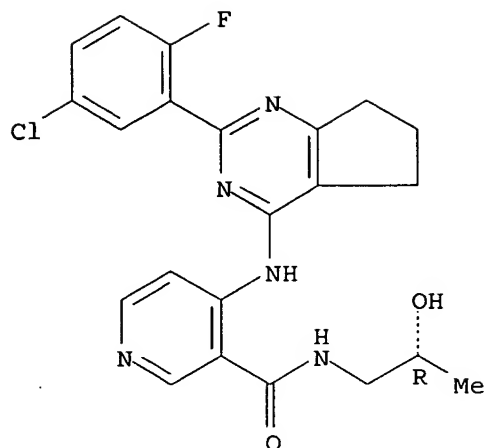


RN 773139-19-8 HCAPLUS  
 CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

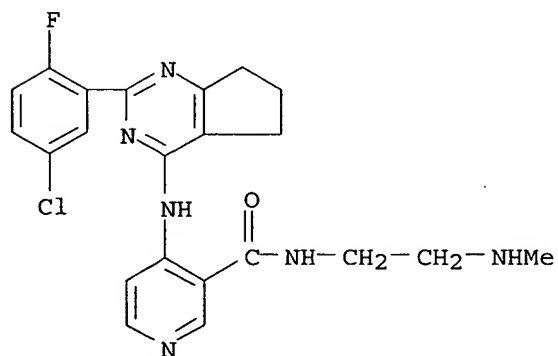


RN 773139-21-2 HCAPLUS  
 CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-[(2R)-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

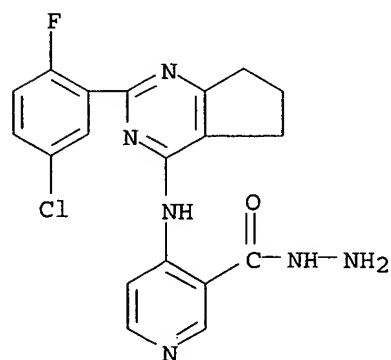
Absolute stereochemistry.



RN 773139-23-4 HCAPLUS  
 CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-[2-(methylamino)ethyl]- (9CI) (CA INDEX NAME)

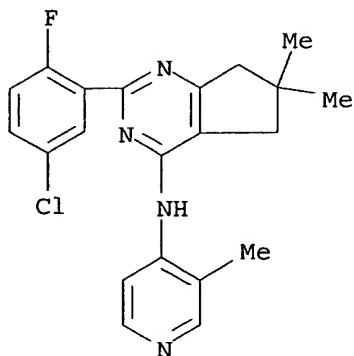


RN 773139-27-8 HCAPLUS  
 CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-, hydrazide (9CI) (CA INDEX NAME)



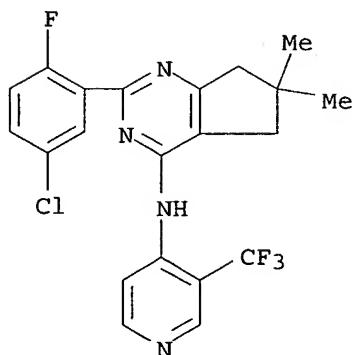
RN 773139-31-4 HCAPLUS

CN 5H-Cyclopentapyrimidin-4-amine, 2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-N-(3-methyl-4-pyridinyl)- (9CI) (CA INDEX NAME)



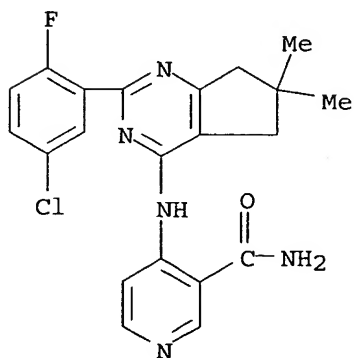
RN 773139-33-6 HCAPLUS

CN 5H-Cyclopentapyrimidin-4-amine, 2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-N-[3-(trifluoromethyl)-4-pyridinyl]- (9CI) (CA INDEX NAME)

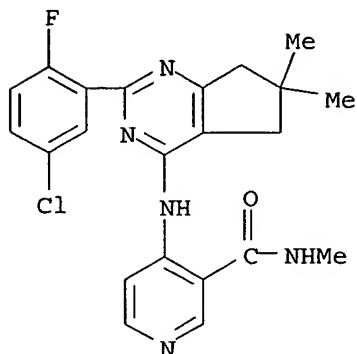


RN 773139-35-8 HCAPLUS

CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)

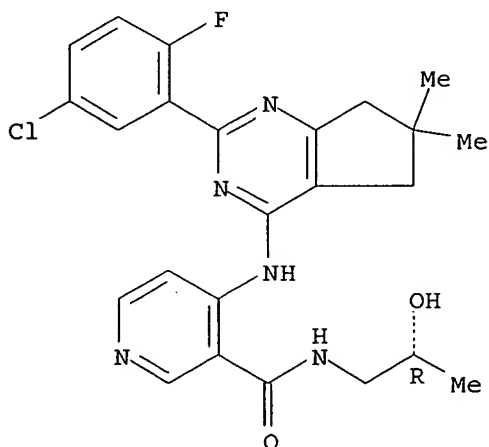


RN 773139-37-0 HCAPLUS  
 CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-5H-cyclopentapyrimidin-4-yl]amino]-N-methyl- (9CI) (CA INDEX NAME)



RN 773139-39-2 HCAPLUS  
 CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-5H-cyclopentapyrimidin-4-yl]amino]-N-[(2R)-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

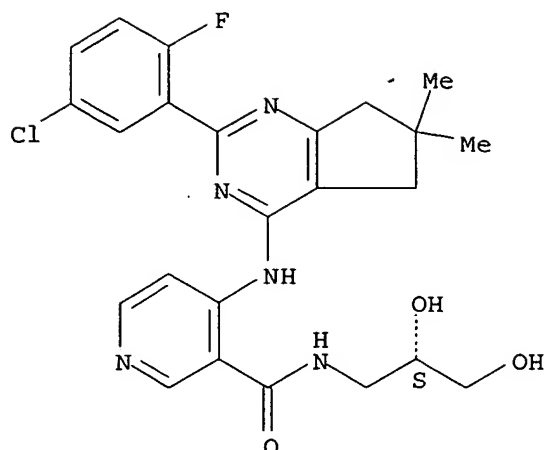
Absolute stereochemistry.



RN 773139-41-6 HCAPLUS  
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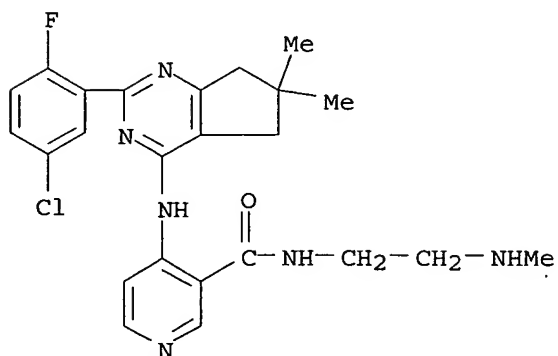
Absolute stereochemistry.





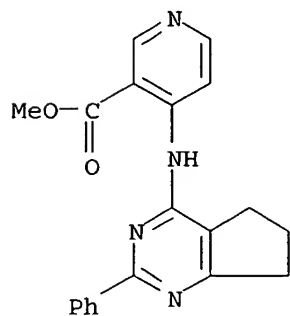
RN 773139-43-8 HCAPLUS

CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-5H-cyclopentapyrimidin-4-yl]amino]-N-[2-(methylamino)ethyl]- (9CI) (CA INDEX NAME)



RN 773139-45-0 HCAPLUS

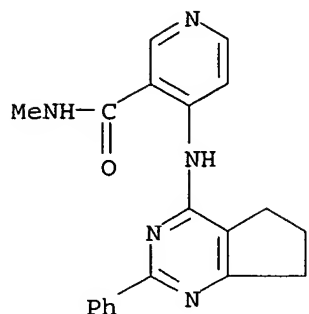
CN 3-Pyridinecarboxylic acid, 4-[(6,7-dihydro-2-phenyl-5H-cyclopentapyrimidin-4-yl)amino]-, methyl ester (9CI) (CA INDEX NAME)



RN 773139-47-2 HCAPLUS

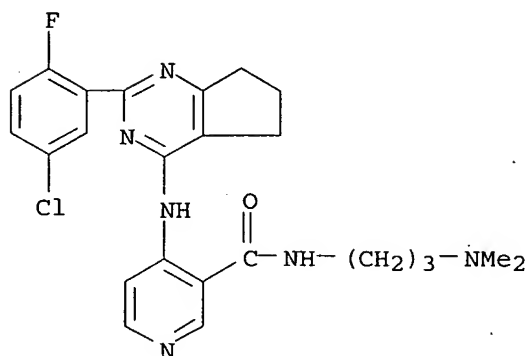
CN 3-Pyridinecarboxamide, 4-[(6,7-dihydro-2-phenyl-5H-cyclopentapyrimidin-4-

yl)amino]-N-methyl- (9CI) (CA INDEX NAME)



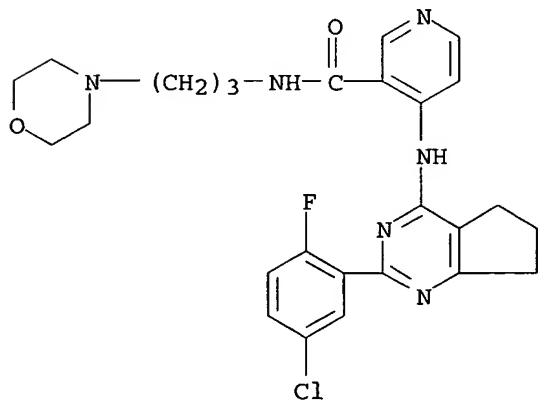
RN 773139-49-4 HCAPLUS

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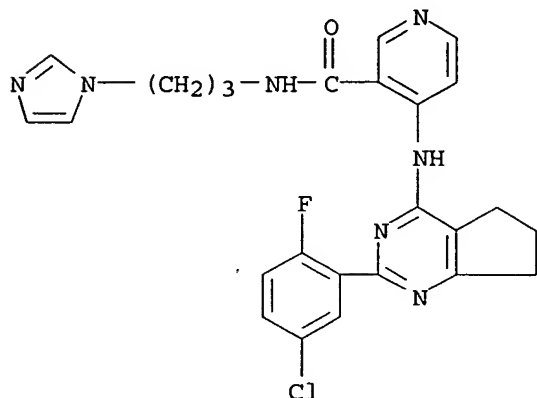


RN 773139-51-8 HCAPLUS

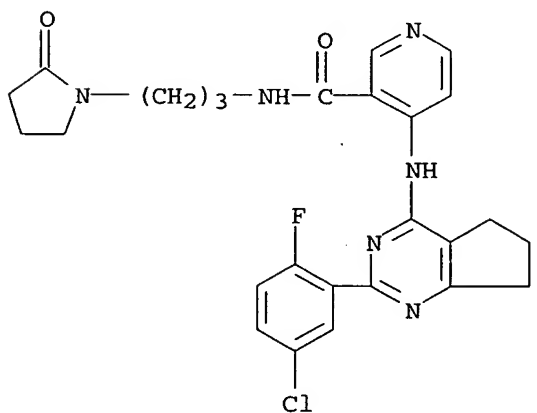
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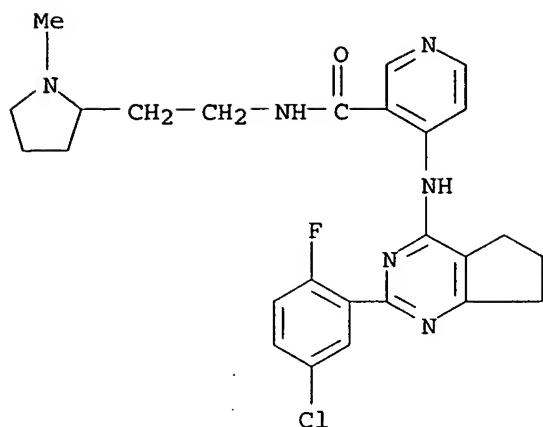
RN 773139-53-0 HCAPLUS  
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RN 773139-55-2 HCAPLUS  
 CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-[3-(2-oxo-1-pyrrolidinyl)propyl]- (9CI) (CA INDEX NAME)

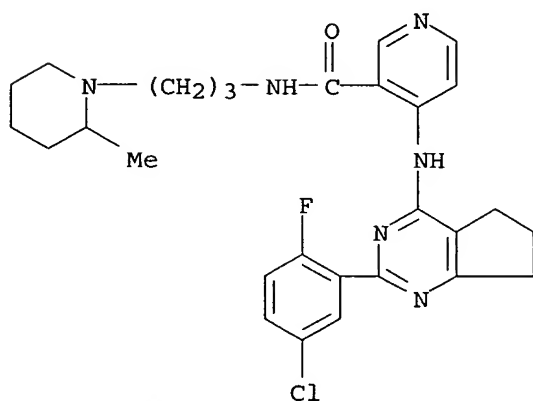


RN 773139-57-4 HCAPLUS  
 CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-[2-(1-methyl-2-pyrrolidinyl)ethyl]- (9CI) (CA INDEX NAME)



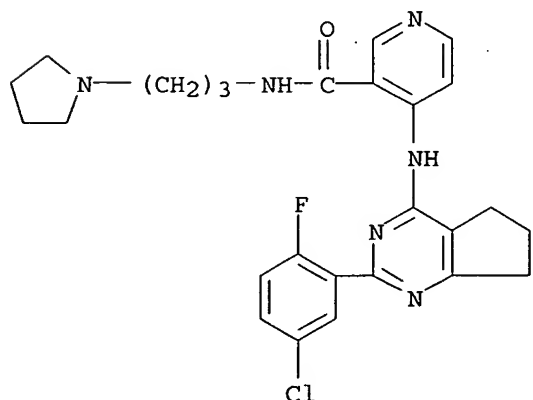
RN 773139-59-6 HCAPLUS

CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-[3-(2-methyl-1-piperidiny)propyl]- (9CI) (CA INDEX NAME)

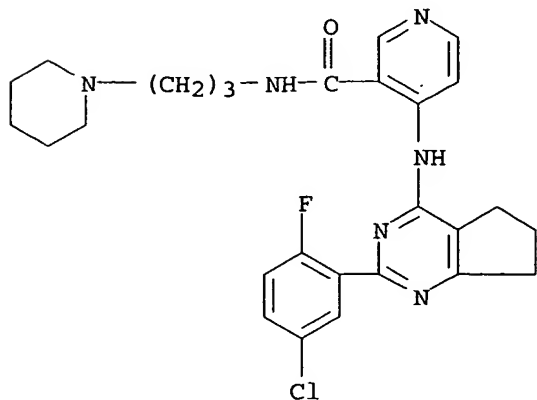


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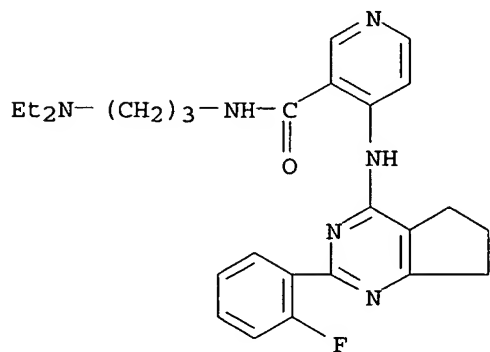
CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-[3-(1-pyrrolidinyl)propyl]- (9CI) (CA INDEX NAME)



RN 773139-65-4 HCAPLUS  
 CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]-N-[3-(1-piperidiny)propyl]- (9CI) (CA INDEX NAME)



RN 773139-67-6 HCAPLUS  
 CN 3-Pyridinecarboxamide, N-[3-(diethylamino)propyl]-4-[[2-(2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)

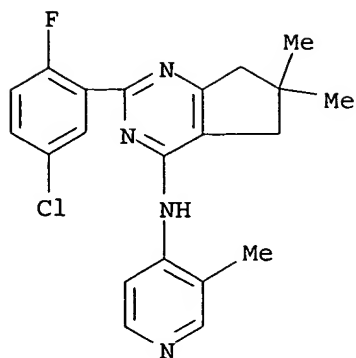


RN 773139-73-4 HCAPLUS  
 CN 5H-Cyclopentapyrimidin-4-amine, 2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-N-(3-methyl-4-pyridinyl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

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CRN 773139-31-4

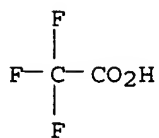
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CM 2

CRN 76-05-1

CMF C2 H F3 O2



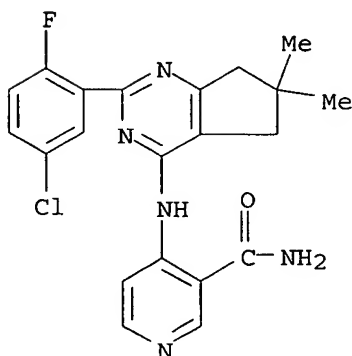
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CN 3-Pyridinecarboxamide, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-5H-cyclopentapyrimidin-4-yl]amino]-, mono(trifluoroacetate) (9CI)  
(CA INDEX NAME)

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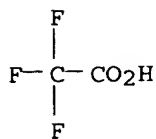
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CM 2

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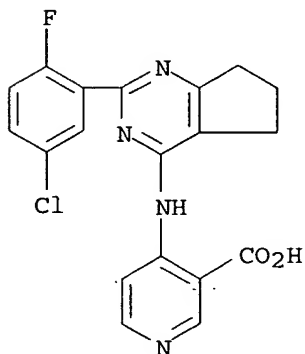
IT 773140-00-4P 773140-26-4P 773140-27-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of bicyclic pyrimidines as inhibitors of transforming growth factor-β)

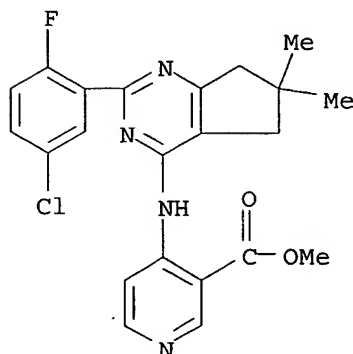
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CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)



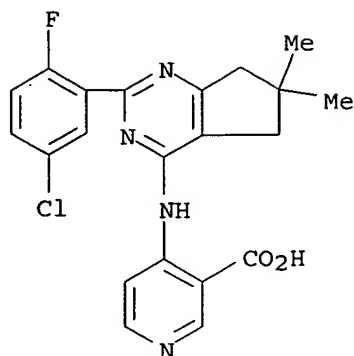
RN 773140-26-4 HCAPLUS

CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-5H-cyclopentapyrimidin-4-yl]amino]-, methyl ester (9CI) (CA INDEX NAME)



RN 773140-27-5 HCAPLUS

CN 3-Pyridinecarboxylic acid, 4-[[2-(5-chloro-2-fluorophenyl)-6,7-dihydro-6,6-dimethyl-5H-cyclopentapyrimidin-4-yl]amino]- (9CI) (CA INDEX NAME)



L33 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:220584 HCAPLUS

DOCUMENT NUMBER: 136:247584

TITLE: Preparation of pyrazolamines and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease

INVENTOR(S): Bebbington, David; Knegt, Ronald; Golec, Julian M. C.; Li, Pan; Davies, Robert; Charrier, Jean-Damien

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 356 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 14

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6696452	B2	20040224		
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ES 2242771	T3	20051116	ES 2001-1971006	20010914
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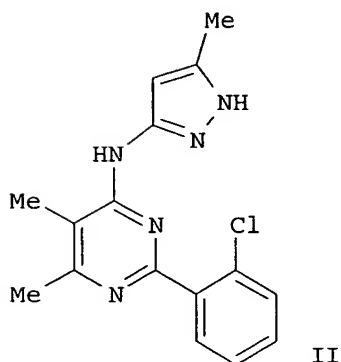
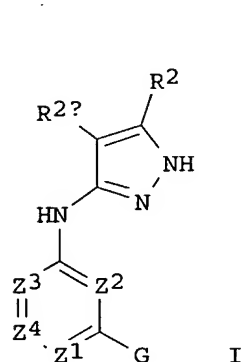
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PRIORITY APPLN. INFO.:

A1 20060427  
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US 2001-34019	A3 20011220
US 2001-34683	A1 20011220

OTHER SOURCE(S):  
GI

MARPAT 136:247584



AB Title compds. I [wherein G = Ring C or Ring D; Ring C = (un)substituted Ph, pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl, or 1,2,4-triazinyl; Ring D = (un)substituted monocyclic or bicyclic ring selected from aryl, heteroaryl, heterocyclyl, or carbocyclyl; Z1 = N or CR<sub>9</sub>; Z2 = N or CH; Z3 = N or CR<sub>x</sub>; Z4 = N or CR<sub>y</sub>; R<sub>x</sub> and R<sub>y</sub> = independently TR<sub>3</sub>, or taken together with their intervening atoms form an (un)saturated fused ring having 1-3 ring heteroatoms; R2 and R2a = independently R, TWR<sub>6</sub>; or C2R2R2a = (un)substituted fused ring containing 0-3 heteroatoms; T = a bond or alkylidene chain; W = C(R<sub>6</sub>)<sub>2</sub>O, C(R<sub>6</sub>)<sub>2</sub>SO<sub>2</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>, CO, CO<sub>2</sub>, CR<sub>6</sub>OCO, CR<sub>6</sub>CONR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CO, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CO<sub>2</sub>, CR<sub>6</sub>:NNR<sub>6</sub>, CR<sub>6</sub>:NO, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>NR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>SO<sub>2</sub>NR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CONR<sub>6</sub>, or CONR<sub>6</sub>; R = H or (un)substituted aliphatic, (hetero)aryl, or heterocyclyl ring; R3 = R, halo, O, OR, COR, CO<sub>2</sub>R, COCOR, COCH<sub>2</sub>COR, NO<sub>2</sub>, CN, SO<sub>2</sub>-2R, N(R<sub>4</sub>)<sub>2</sub>, CON(R<sub>4</sub>)<sub>2</sub>, SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, OCOR, NR<sub>4</sub>COR, NR<sub>4</sub>CO<sub>2</sub>(aliphatic), NR<sub>4</sub>N(R<sub>4</sub>)<sub>2</sub>, C:NN(R<sub>4</sub>)<sub>2</sub>, C:NOR, NR<sub>4</sub>CO(R<sub>4</sub>)<sub>2</sub>, NR<sub>4</sub>SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, NR<sub>4</sub>SO<sub>2</sub>R, or OCON(R<sub>4</sub>)<sub>2</sub>; R4 = R7, COR7, CO<sub>2</sub>(aliphatic), CON(R7)<sub>2</sub>, or SO<sub>2</sub>R7; or N(R<sub>4</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; R6 and R7 = independently H or (un)substituted aliphatic group; or N(R<sub>6</sub>)<sub>2</sub> = heterocyclyl

or heteroaryl; or N(R7)2 = heterocyclyl or heteroaryl; R9 = R, halo, OR, COR, CO2R, COCOR, etc.] were prepared as protein kinase inhibitors, especially

as

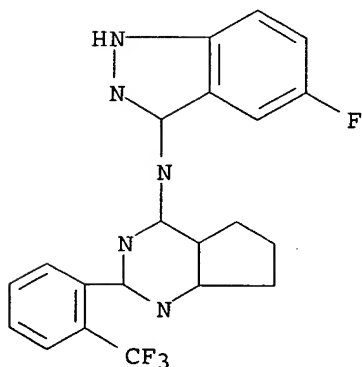
inhibitors of Aurora-2 and GSK-3, for treating diseases such as cancer, diabetes, and Alzheimer's disease. Claims cover (pyrimidinyl)pyrazolamines and indazolamines I [wherein Z1 = CR9; Z2 and Z3 = N; Z4 = CRyl]. Examples include data for approx. 300 invention compds. prepared by a variety of synthetic methods and bioassay results for the inhibition of GSK- $\beta$ 3, Aurora-2, ERK, and Src. For instance, the N-(4-pyrimidinyl)-3-pyrazolamine II was prepared and exhibited Ki values of < 0.1  $\mu$ M for glycogen synthetase kinase 3 $\beta$  (GSK-3 $\beta$ ) and 0.1-1.0  $\mu$ M for Aurora-2.

IT 404827-36-7P 404827-42-5P, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (5-fluoro-1H-indazol-3-yl)amine  
404827-43-6P, (1H-Indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine 404827-44-7P, (7-Fluoro-1H-indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine 404827-45-8P, (5,7-Difluoro-1H-indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine 404827-46-9P, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (1H-indazol-3-yl)amine 404827-47-0P, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (7-fluoro-1H-indazol-3-yl)amine 404827-48-1P, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (5,7-difluoro-1H-indazol-3-yl)amine  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(protein kinase inhibitor; preparation of heterocyclylpyrazolamines and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease)

RN 404827-36-7 HCAPLUS

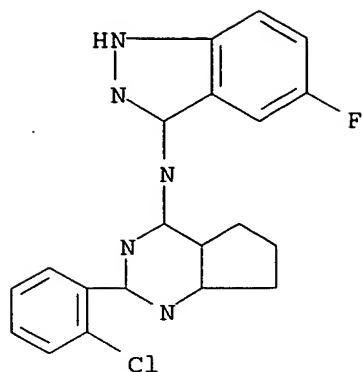
CN 1H-Indazol-3-amine, N-[6,7-dihydro-2-[2-(trifluoromethyl)phenyl]-5H-cyclopentapyrimidin-4-yl]-5-fluoro- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-42-5 HCAPLUS

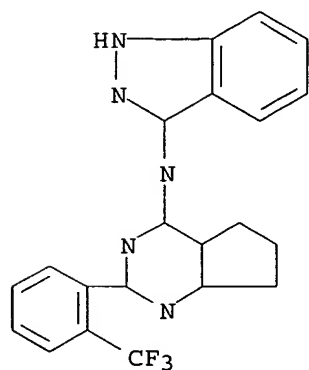
CN 1H-Indazol-3-amine, N-[2-(2-chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]-5-fluoro- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-43-6 HCAPLUS

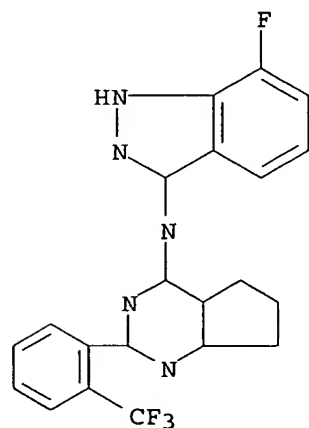
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-44-7 HCAPLUS

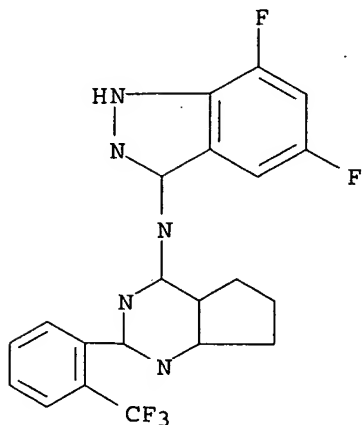
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

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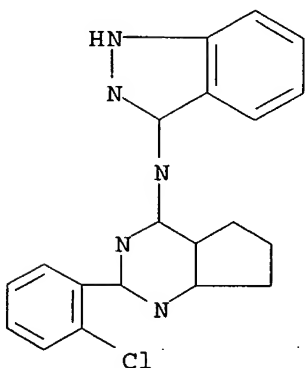
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

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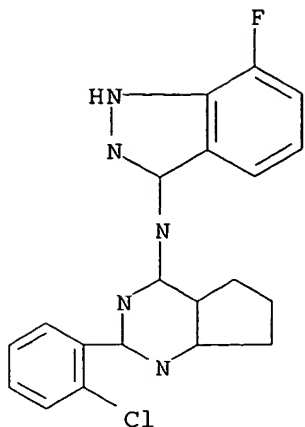
CN 1H-Indazol-3-amine, N-[2-(2-chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-47-0 HCAPLUS

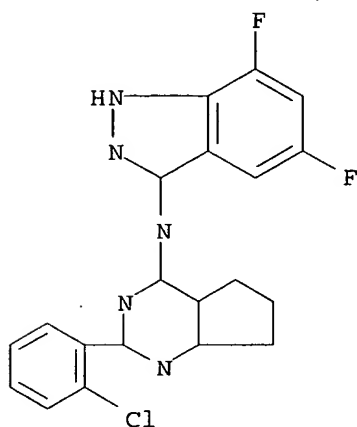
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-48-1 HCAPLUS

CN 1H-Indazol-3-amine, N-[2-(2-chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]-5,7-difluoro- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:220583 HCAPLUS

DOCUMENT NUMBER: 136:247583

TITLE: Preparation of pyrazolamines and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease

INVENTOR(S): Davies, Robert; Bebbington, David; Knegt, Ronald; Wannamaker, Marion; Li, Pan; Forester, Cornelia; Pierce, Albert; Kay, David

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 373 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 14

## PATENT INFORMATION:

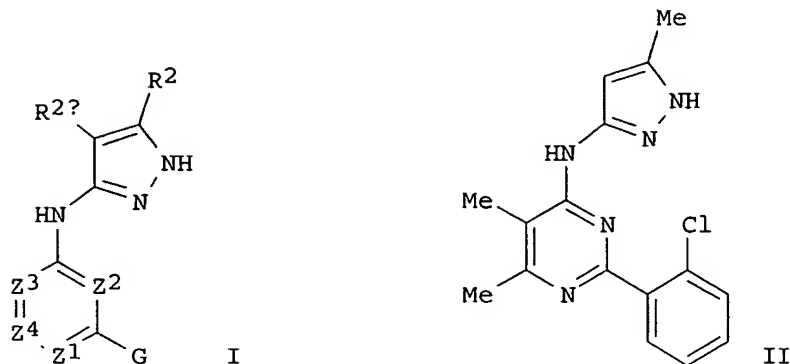
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OTHER SOURCE(S):  
GI

MARPAT 136:247583





AB Title compds. I [wherein G = Ring C or Ring D; Ring C = (un)substituted Ph, pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl, or 1,2,4-triazinyl; Ring D = (un)substituted monocyclic or bicyclic ring selected from aryl, heteroaryl, heterocyclyl, or carbocyclyl; Z1 = N or CR<sub>9</sub>; Z2 = N or CH; Z3 = N or CR<sub>x</sub>; Z4 = N or CR<sub>y</sub>; R<sub>x</sub> and R<sub>y</sub> = independently TR<sub>3</sub>, or taken together with their intervening atoms form an (un)saturated fused ring having 1-3 ring heteroatoms; R2 and R2a = independently R, TWR<sub>6</sub>; or C2R2R2a = (un)substituted fused ring containing 0-3 heteroatoms; T = a bond or alkylidene chain; W = C(R<sub>6</sub>)<sub>2</sub>O, C(R<sub>6</sub>)<sub>2</sub>SO-2, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>, CO, CO<sub>2</sub>, CR<sub>6</sub>OCO, CR<sub>6</sub>CONR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CO, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CO<sub>2</sub>, CR<sub>6</sub>:NNR<sub>6</sub>, CR<sub>6</sub>:NO, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>NR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>SO<sub>2</sub>NR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CONR<sub>6</sub>, or CONR<sub>6</sub>; R = H or (un)substituted aliphatic, (hetero)aryl, or heterocyclyl ring; R<sub>3</sub> = R, halo, O, OR, COR, CO<sub>2</sub>R, COCOR, COCH<sub>2</sub>COR, NO<sub>2</sub>, CN, SO-2R, N(R<sub>4</sub>)<sub>2</sub>, CON(R<sub>4</sub>)<sub>2</sub>, SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, OCOR, NR<sub>4</sub>COR, NR<sub>4</sub>CO<sub>2</sub>(aliphatic), NR<sub>4</sub>N(R<sub>4</sub>)<sub>2</sub>, C:NN(R<sub>4</sub>)<sub>2</sub>, C:NOR, NR<sub>4</sub>CO(R<sub>4</sub>)<sub>2</sub>, NR<sub>4</sub>SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, NR<sub>4</sub>SO<sub>2</sub>R, or OCON(R<sub>4</sub>)<sub>2</sub>; R<sub>4</sub> = R<sub>7</sub>, COR<sub>7</sub>, CO<sub>2</sub>(aliphatic), CON(R<sub>7</sub>)<sub>2</sub>, or SO<sub>2</sub>R<sub>7</sub>; or N(R<sub>4</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; R<sub>6</sub> and R<sub>7</sub> = independently H or (un)substituted aliphatic group; or N(R<sub>6</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; or N(R<sub>7</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; R<sub>9</sub> = R, halo, OR, COR, CO<sub>2</sub>R, COCOR, etc.] were prepared as protein kinase inhibitors, especially

as inhibitors of Aurora-2 and GSK-3, for treating diseases such as cancer, diabetes, and Alzheimer's disease. Claims cover (pyrimidinyl)pyrazolamines and indazolamines I [wherein Z1 and Z2 = N; Z3 = CR<sub>x</sub>; Z4 = CR<sub>y</sub>; G = Ring C]. Examples include data for approx. 300 invention compds. prepared by a variety of synthetic methods and bioassay results for the inhibition of GSK-β<sub>3</sub>, Aurora-2, ERK, and Src. For instance, the N-(4-pyrimidinyl)-3-pyrazolamine II was prepared and exhibited K<sub>i</sub> values of < 0.1 μM for glycogen synthetase kinase 3β (GSK-3β) and 0.1-1.0 μM for Aurora-2.

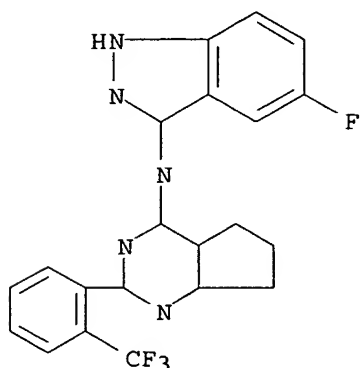
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**404827-43-6P**, (1H-Indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine **404827-44-7P**, (7-Fluoro-1H-indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine **404827-45-8P**, (5,7-Difluoro-1H-indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine **404827-46-9P**, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (1H-indazol-3-yl)amine **404827-47-0P**, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (7-fluoro-1H-indazol-3-yl)amine **404827-48-1P**, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (5,7-difluoro-1H-indazol-3-yl)amine  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(protein kinase inhibitor; preparation of heterocyclylpyrazolamines and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease)

RN 404827-36-7 HCAPLUS

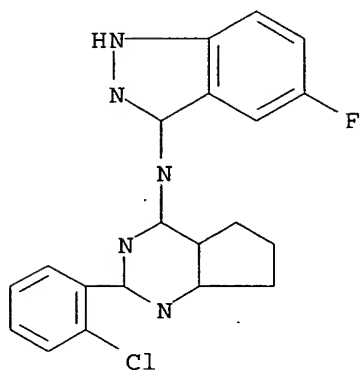
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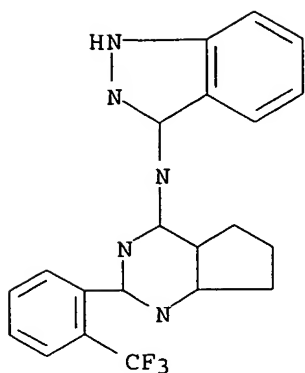
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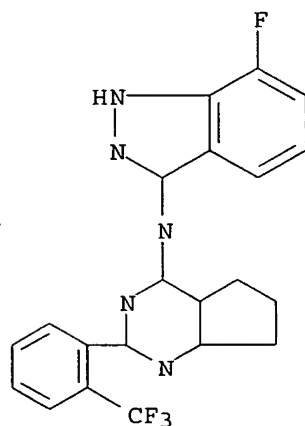
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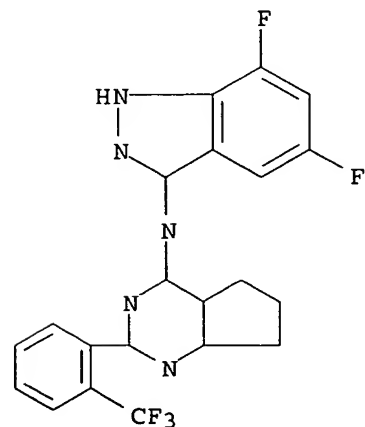
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

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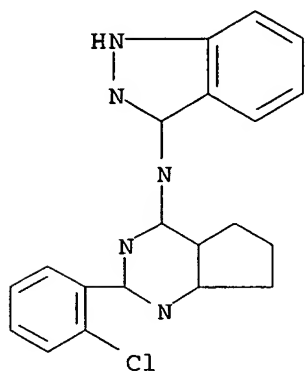
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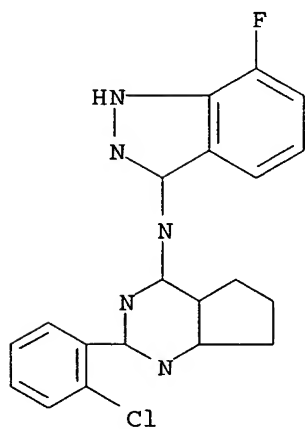
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RN 404827-47-0 HCAPLUS

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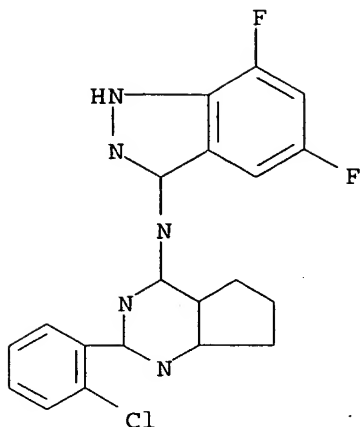


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REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:220582 HCAPLUS

DOCUMENT NUMBER: 136:247582

TITLE: Preparation of pyrazolamines and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease

INVENTOR(S): Bebbington, David; Binch, Hayley; Knegetel, Ronald; Golec, Julian M. C.; Patel, Sanjay; Charrier, Jean-Damien; Kay, David; Davies, Robert; Li, Pan; Wannamaker, Marion; Forster, Cornelia; Pierce, Albert

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 355 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 14

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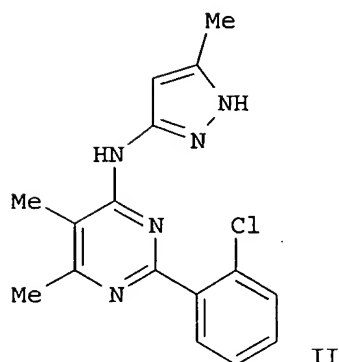
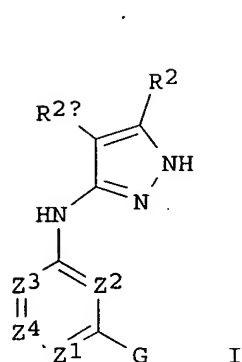
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			US 2001-34019	A3 20011220
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OTHER SOURCE(S):  
GI

MARPAT 136:247582



AB Title compds. I [wherein G = Ring C or Ring D; Ring C = (un)substituted Ph, pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl, or 1,2,4-triazinyl; Ring D = (un)substituted monocyclic or bicyclic ring selected from aryl, heteroaryl, heterocyclyl, or carbocyclyl; Z<sup>1</sup> = N or CR<sup>9</sup>; Z<sup>2</sup> = N or CH; Z<sup>3</sup> = N or CR<sup>x</sup>; Z<sup>4</sup> = N or CR<sup>y</sup>; R<sup>x</sup> and R<sup>y</sup> = independently TR<sup>3</sup>, or taken together with their intervening atoms form an (un)saturated fused ring having 1-3 ring heteroatoms; R<sup>2</sup> and R<sup>2a</sup> = independently R, TWR<sup>6</sup>; or C<sup>2</sup>R<sup>2</sup>R<sup>2a</sup> = (un)substituted fused ring containing 0-3 heteroatoms; T = a bond or alkylidene chain; W = C(R<sup>6</sup>)<sub>2</sub>O, C(R<sup>6</sup>)<sub>2</sub>S<sub>0-2</sub>, C(R<sup>6</sup>)<sub>2</sub>NR<sup>6</sup>, CO, CO<sub>2</sub>, CR<sup>6</sup>OCO, CR<sup>6</sup>CONR<sup>6</sup>, C(R<sup>6</sup>)<sub>2</sub>NR<sup>6</sup>CO, C(R<sup>6</sup>)<sub>2</sub>NR<sup>6</sup>CO<sub>2</sub>, CR<sup>6</sup>:NNR<sup>6</sup>, CR<sup>6</sup>:NO, C(R<sup>6</sup>)<sub>2</sub>NR<sup>6</sup>NR<sup>6</sup>,

C(R6)2NR6SO2NR6, C(R6)2NR6CONR6, or CONR6; R = H or (un)substituted aliphatic, (hetero)aryl, or heterocyclyl ring; R3 = R, halo, O, OR, COR, CO2R, COCOR, COCH2COR, NO2, CN, SOO-2R, N(R4)2, CON(R4)2, SO2N(R4)2, OCOR, NR4COR, NR4CO2(aliphatic), NR4N(R4)2, C:NN(R4)2, C:NOR, NR4CO(R4)2, NR4SO2N(R4)2, NR4SO2R, or OCON(R4)2; R4 = R7, COR7, CO2(aliphatic), CON(R7)2, or SO2R7; or N(R4)2 = heterocyclyl or heteroaryl; R6 and R7 = independently H or (un)substituted aliphatic group; or N(R6)2 = heterocyclyl or heteroaryl; or N(R7)2 = heterocyclyl or heteroaryl; R9 = R, halo, OR, COR, CO2R, COCOR, etc.] were prepared as protein kinase inhibitors, especially

as

inhibitors of Aurora-2 and GSK-3, for treating diseases such as cancer, diabetes, and Alzheimer's disease. Claims cover (pyrimidinyl)pyrazolamines and indazolamines I [wherein Z1 and Z2 = N; Z3 = CRx; Z4 = CRY; G = Ring D]. Examples include data for approx. 300 invention compds. prepared by a variety of synthetic methods and bioassay results for the inhibition of GSK- $\beta$ 3, Aurora-2, ERK, and Src. For instance, the N-(4-pyrimidinyl)-3-pyrazolamine II was prepared and exhibited Ki values of < 0.1  $\mu$ M for glycogen synthetase kinase 3 $\beta$  (GSK-3 $\beta$ ) and 0.1-1.0  $\mu$ M for Aurora-2.

IT

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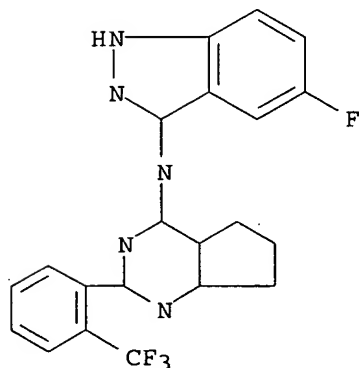
(protein kinase inhibitor; preparation of heterocyclylpyrazolamines and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease)

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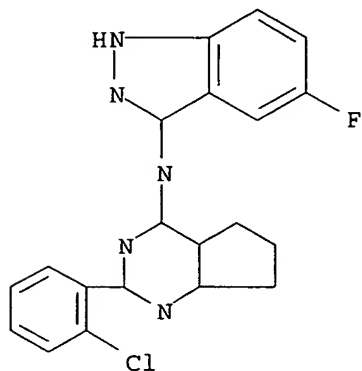
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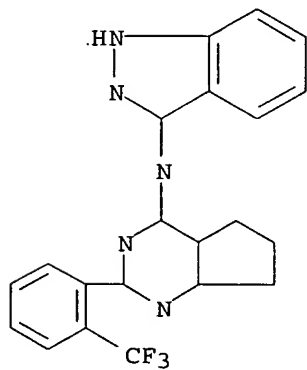


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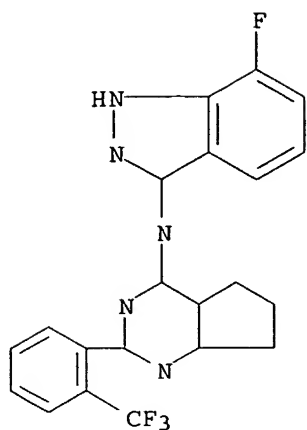
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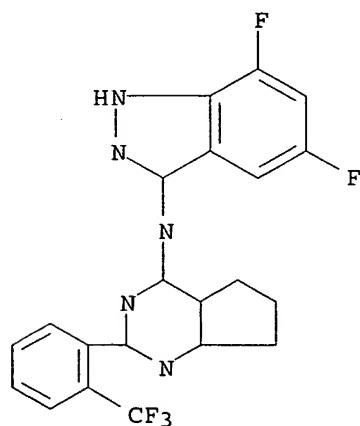
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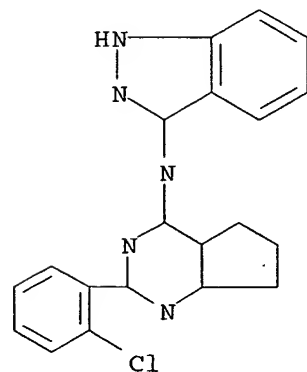
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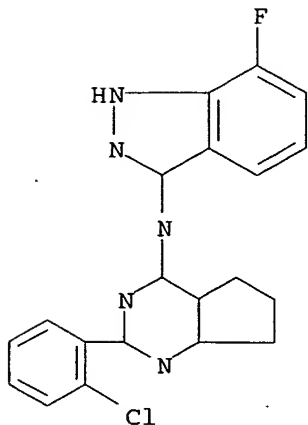
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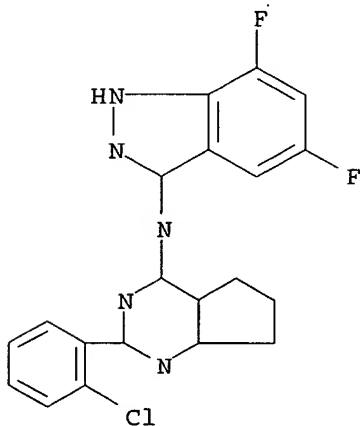
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:220581 HCAPLUS

DOCUMENT NUMBER: 136:247581

TITLE: Preparation of pyrazolamines and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease

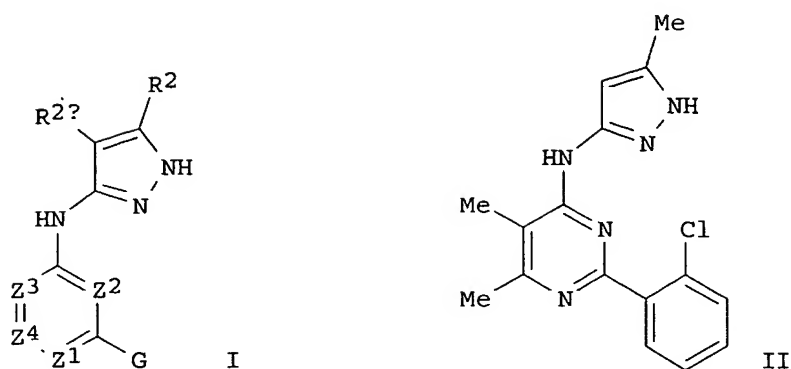
INVENTOR(S): Golec, Julian M. C.; Charrier, Jean-Damien; Knegt, Ronald; Bebbington, David; Davies, Robert; Li, Pan

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 357 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 14  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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OTHER SOURCE(S):		MARPAT 136:247581		
GI				



AB Title compds. I [wherein G = Ring C or Ring D; Ring C = (un)substituted Ph, pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl, or 1,2,4-triazinyl; Ring D = (un)substituted monocyclic or bicyclic ring selected from aryl, heteroaryl, heterocyclyl, or carbocyclyl; Z<sup>1</sup> = N or CR<sup>9</sup>; Z<sup>2</sup> = N or CH; Z<sup>3</sup> = N or CR<sup>x</sup>; Z<sup>4</sup> = N or CR<sup>y</sup>; Rx and Ry = independently TR<sup>3</sup>, or taken together with their intervening atoms form an (un)saturated fused ring having 1-3 ring heteroatoms; R<sup>2</sup> and R<sup>2a</sup> = independently R, TWR<sub>6</sub>; or C<sub>2</sub>R<sub>2</sub>R<sub>2a</sub> = (un)substituted fused ring containing 0-3 heteroatoms; T = a bond or alkylidene chain; W = C(R<sub>6</sub>)<sub>2</sub>O, C(R<sub>6</sub>)<sub>2</sub>SO<sub>2</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>, CO, CO<sub>2</sub>, CR<sub>6</sub>OCO, CR<sub>6</sub>CONR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CO, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CO<sub>2</sub>, CR<sub>6</sub>:NMR<sub>6</sub>, CR<sub>6</sub>:NO, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>NR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>SO<sub>2</sub>NR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CONR<sub>6</sub>, or CONR<sub>6</sub>; R = H or (un)substituted aliphatic, (hetero)aryl, or heterocyclyl ring; R<sub>3</sub> = R, halo, O, OR, COR, CO<sub>2</sub>R, COCOR, COCH<sub>2</sub>COR, NO<sub>2</sub>, CN, SO<sub>2</sub>-2R, N(R<sub>4</sub>)<sub>2</sub>, CON(R<sub>4</sub>)<sub>2</sub>, SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, OCOR, NR<sub>4</sub>COR, NR<sub>4</sub>CO<sub>2</sub>(aliphatic), NR<sub>4</sub>N(R<sub>4</sub>)<sub>2</sub>, C:NN(R<sub>4</sub>)<sub>2</sub>, C:NOR, NR<sub>4</sub>CO(R<sub>4</sub>)<sub>2</sub>, NR<sub>4</sub>SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, NR<sub>4</sub>SO<sub>2</sub>R, or OCON(R<sub>4</sub>)<sub>2</sub>; R<sub>4</sub> = R<sub>7</sub>, COR<sub>7</sub>, CO<sub>2</sub>(aliphatic), CON(R<sub>7</sub>)<sub>2</sub>, or SO<sub>2</sub>R<sub>7</sub>; or N(R<sub>4</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; R<sub>6</sub> and R<sub>7</sub> = independently H or (un)substituted aliphatic group; or N(R<sub>6</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; or N(R<sub>7</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; R<sub>9</sub> = R, halo, OR, COR, CO<sub>2</sub>R, COCOR, etc.] were prepared as protein kinase inhibitors, especially

as inhibitors of Aurora-2 and GSK-3, for treating diseases such as cancer, diabetes, and Alzheimer's disease. Claims cover pyrazolamines and indazolamines I [wherein Z<sup>1</sup> = N or CR<sup>9</sup>; Z<sup>2</sup> = N or CH; Z<sup>3</sup> = N or CR<sup>x</sup>; Z<sup>4</sup> = N; at least one of Z<sup>1</sup> or Z<sup>3</sup> = N]. Examples include data for approx. 300 invention compds. prepared by a variety of synthetic methods and bioassay results for the inhibition of GSK-β<sub>3</sub>, Aurora-2, ERK, and Src. For instance, the N-(4-pyrimidinyl)-3-pyrazolamine II was prepared and exhibited Ki values of < 0.1 μM for glycogen synthetase kinase 3β (GSK-3β) and 0.1-1.0 μM for Aurora-2.

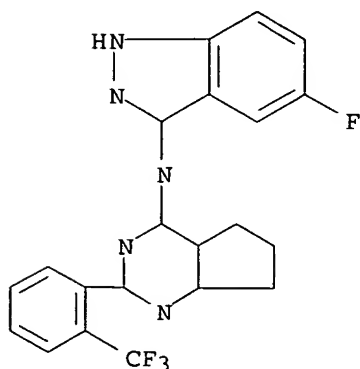
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(protein kinase inhibitor; preparation of heterocyclylpyrazolamines and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease)

RN 404827-36-7 HCAPLUS

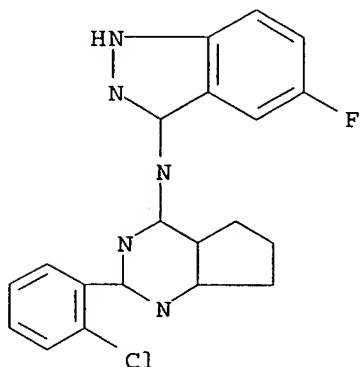
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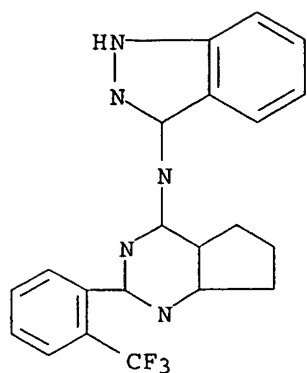
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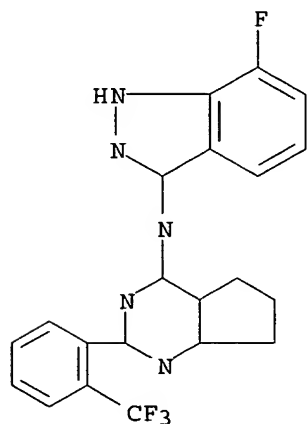
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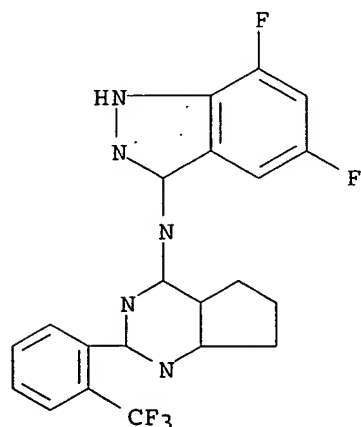
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RN 404827-45-8 HCAPLUS

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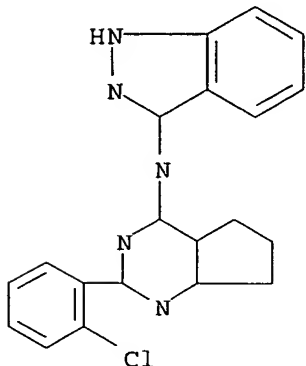




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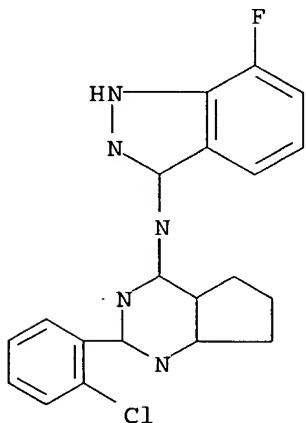
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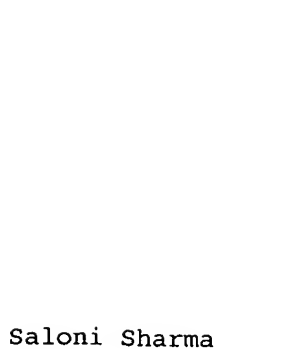
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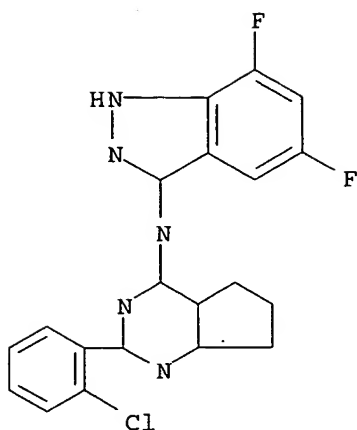


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RN 404827-48-1 HCAPLUS

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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:220580 HCAPLUS

DOCUMENT NUMBER: 136:247606

TITLE: Preparation of 3-(4-pyrimidinylamino)pyrazole derivatives as protein kinase inhibitors, especially of Aurora-2 and GSK-3, for treating cancer, diabetes and Alzheimer's disease.

INVENTOR(S): Davies, Robert; Bebbington, David; Binch, Haley; Knegtel, Ronald; Golec, Julian M. C.; Patel, Sanjay; Charrier, Jean-Damien; Kay, David; Davies, Robert

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 357 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 14

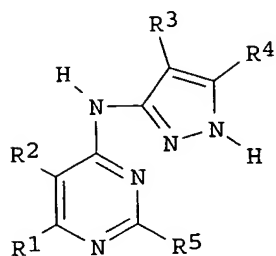
PATENT INFORMATION:

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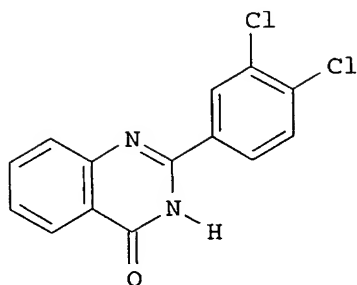
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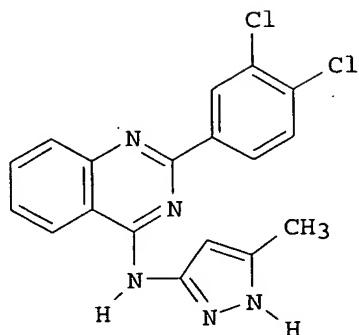
OTHER SOURCE(S): MARPAT 136:247606  
GI



I



II



III

AB The preparation of title compds. I and their pharmaceutically acceptable salts or prodrugs is described [wherein: R1, R2 = dependently form

(un)substituted fused, unsatd. or partially unsatd., 5-8 membered carbocyclo ring; R3, R4 = independently H, aliphatic, aryl, heteroaryl, heterocyclyl, or wide variety of functionalized sidechains; or dependently form a fused, 5-8 membered, unsatd. or partially unsatd. ring having 0-3 ring heteroatoms (N, S, O); R5 = fused, (un)substituted 5-7 membered monocyclic ring or 8-10 membered bicyclic ring (aryl, heteroaryl, heterocyclyl or carbocyclyl, said heteroaryl or heterocyclyl ring having 1-4 ring heteroatoms (N, S, O))). For example, chlorination of quinazolinone II with phosphorus oxychloride, followed by condensation with 3-amino-5-methylpyrazole afforded claimed compound III. Compds. I are inhibitors of GSK-3 and Aurora-2 protein kinases. The invention also relates to methods of treating diseases associated with these protein kinases, such as diabetes, cancer and Alzheimer's disease. In bioassays, compds. I inhibited the following kinases with Kis reported < 100 nM: GSK-3 $\beta$  (163 compds.), AURORA-2 (65 compds.), CDK-2 (no data), ERK2 (8 compds.), AKT (no data), and Human Src kinase (21 compds.). Claims included 146 specific compds., and 188 examples were given. The syntheses of 6 compds. and 46 intermediates are described.

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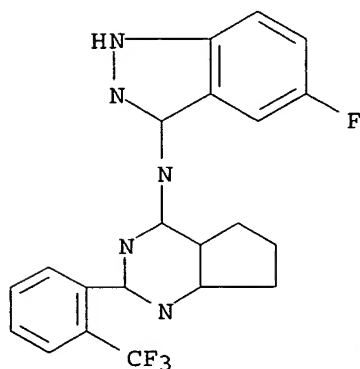
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 3-(4-pyrimidinylamino)pyrazole compds. as protein kinase inhibitors)

RN 404827-36-7 HCAPLUS

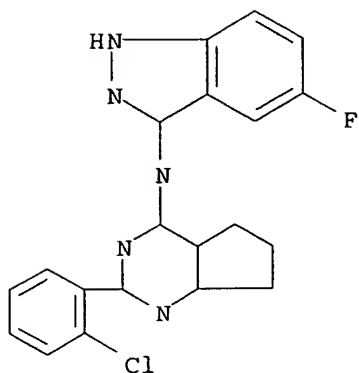
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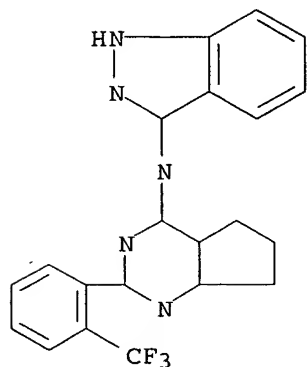
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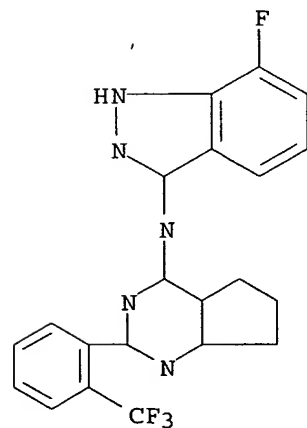
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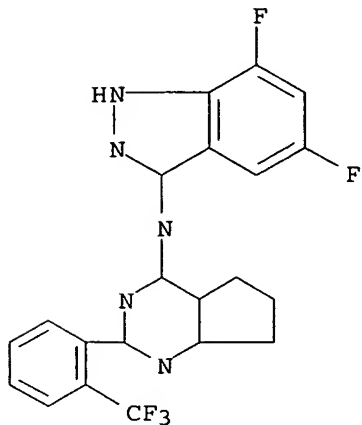
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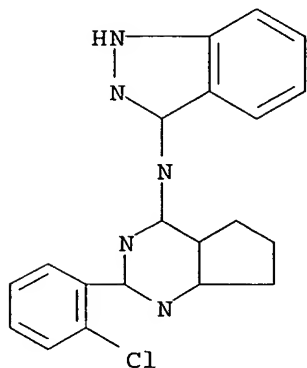
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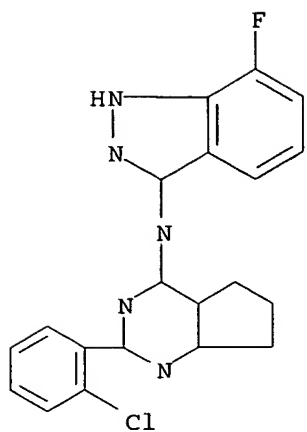
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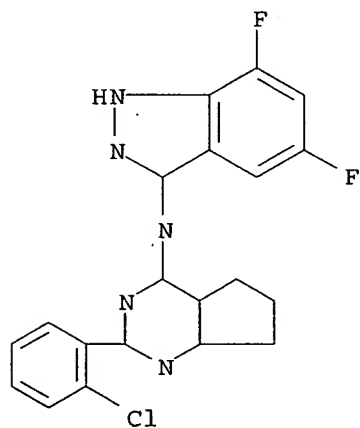
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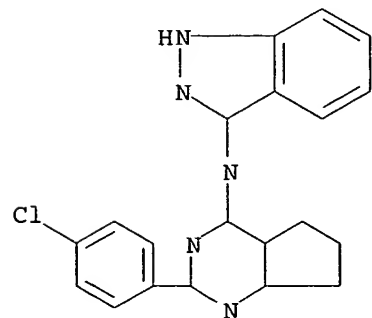
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE  
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
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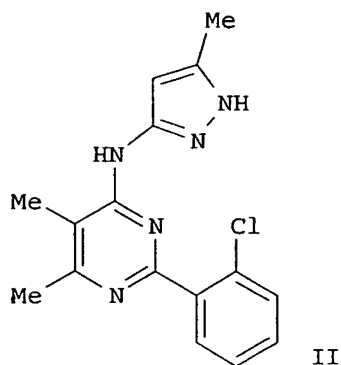
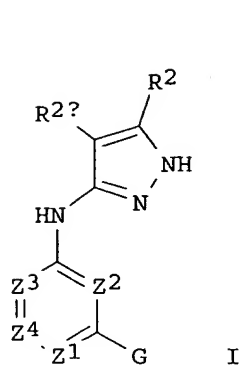
L33 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2002:220579 HCAPLUS  
DOCUMENT NUMBER: 136:247580  
TITLE: Preparation of pyrazolamines and analogs as protein  
kinase inhibitors for treatment of cancer, diabetes,  
and Alzheimer's disease  
INVENTOR(S): Davies, Robert; Li, Pan; Golec, Julian; Bebbington,  
David  
PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA  
SOURCE: PCT Int. Appl., 406 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 14  
PATENT INFORMATION:

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US 2001-34683	A1 20011220

OTHER SOURCE(S): MARPAT 136:247580  
GI



AB Title compds. I [wherein G = Ring C or Ring D; Ring C = (un)substituted Ph, pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl, or 1,2,4-triazinyl; Ring D = (un)substituted monocyclic or bicyclic ring selected from aryl, heteroaryl, heterocyclyl, or carbocyclyl; Z1 = N or CR<sub>9</sub>; Z2 = N or CH; Z3 = N or CR<sub>x</sub>; Z4 = N or CR<sub>y</sub>; R<sub>x</sub> and R<sub>y</sub> = independently TR<sub>3</sub>, or taken together with their intervening atoms form an (un)saturated fused ring having 1-3 ring heteroatoms; R2 and R2a = independently R, TWR<sub>6</sub>; or C2R2R2a = (un)substituted fused ring containing 0-3 heteroatoms; T = a bond or alkylidene chain; W = C(R<sub>6</sub>)<sub>2</sub>O, C(R<sub>6</sub>)<sub>2</sub>SO-2, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>, CO, CO<sub>2</sub>, CR<sub>6</sub>OCO, CR<sub>6</sub>CONR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CO, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CO<sub>2</sub>, CR<sub>6</sub>:NMR<sub>6</sub>, CR<sub>6</sub>:NO, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>NR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>SO<sub>2</sub>NR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CONR<sub>6</sub>, or CONR<sub>6</sub>; R = H or (un)substituted aliphatic, (hetero)aryl, or heterocyclyl ring; R<sub>3</sub> = R, halo, O, OR, COR, CO<sub>2</sub>R, COCOR, COCH<sub>2</sub>COR, NO<sub>2</sub>, CN, SO<sub>0</sub>-2R, N(R<sub>4</sub>)<sub>2</sub>, CON(R<sub>4</sub>)<sub>2</sub>, SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, OCOR, NR<sub>4</sub>COR, NR<sub>4</sub>CO<sub>2</sub>(aliphatic), NR<sub>4</sub>N(R<sub>4</sub>)<sub>2</sub>, C:NN(R<sub>4</sub>)<sub>2</sub>, C:NOR, NR<sub>4</sub>CO(R<sub>4</sub>)<sub>2</sub>, NR<sub>4</sub>SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, NR<sub>4</sub>SO<sub>2</sub>R, or OCON(R<sub>4</sub>)<sub>2</sub>; R<sub>4</sub> = R<sub>7</sub>, COR<sub>7</sub>, CO<sub>2</sub>(aliphatic), CON(R<sub>7</sub>)<sub>2</sub>, or SO<sub>2</sub>R<sub>7</sub>; or N(R<sub>4</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; R<sub>6</sub> and R<sub>7</sub> = independently H or (un)substituted aliphatic group; or N(R<sub>6</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; or N(R<sub>7</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; R<sub>9</sub> = R, halo, OR, COR, CO<sub>2</sub>R, COCOR, etc.] were prepared as protein kinase inhibitors, especially

as

inhibitors of Aurora-2 and GSK-3, for treating diseases such as cancer, diabetes, and Alzheimer's disease. Claims cover (triazinyl)pyrazolamines and indazolamines I [wherein Z1, Z2, and Z3 = N; Z4 = CR<sub>y</sub>]. Examples include data for approx. 300 invention compds. prepared by a variety of synthetic methods and bioassay results for the inhibition of GSK-3 $\beta$ , Aurora-2, ERK, and Src. For instance, the N-(4-pyrimidinyl)-3-pyrazolamine II was prepared and exhibited K<sub>i</sub> values of < 0.1  $\mu$ M for glycogen synthetase kinase 3 $\beta$  (GSK-3 $\beta$ ) and 0.1-1.0  $\mu$ M for Aurora-2.

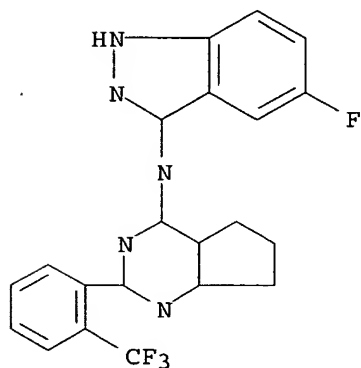
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(protein kinase inhibitor; preparation of heterocyclpyrazolamines and  
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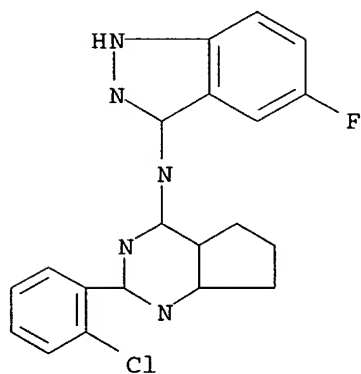
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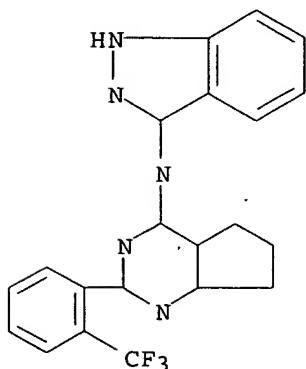
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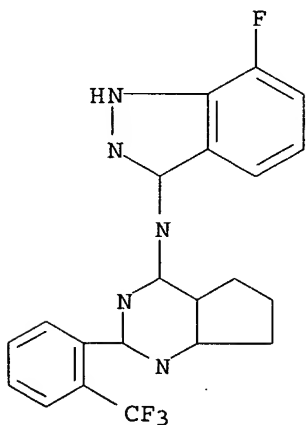
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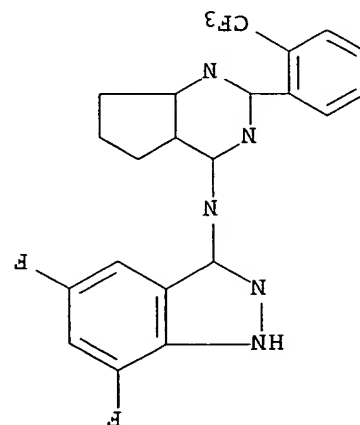
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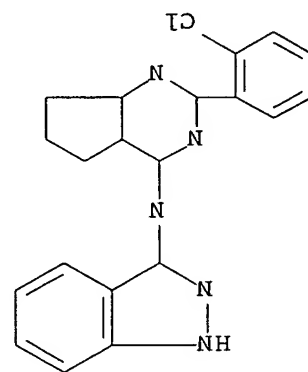
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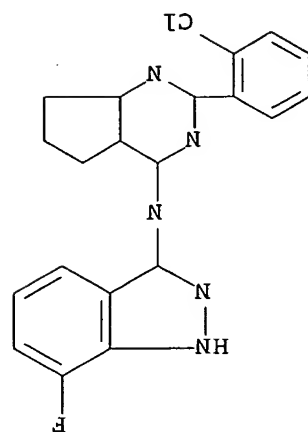
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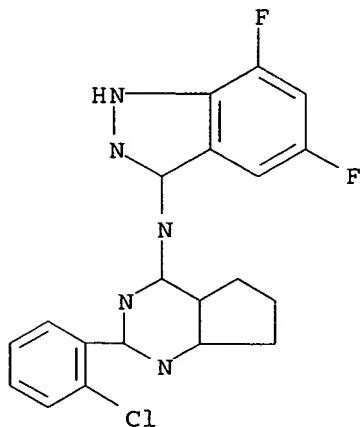
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:220578 HCAPLUS

DOCUMENT NUMBER: 136:263164

TITLE: Preparation of triazolamines as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease

INVENTOR(S): Bebbington, David; Knegetel, Ronald; Binch, Haley; Golec, Julian M. C.; Li, Pan; Charrier, Jean-Damien

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 377 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 14

PATENT INFORMATION:

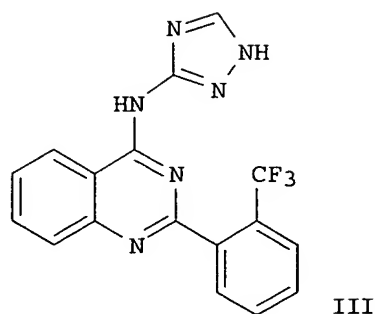
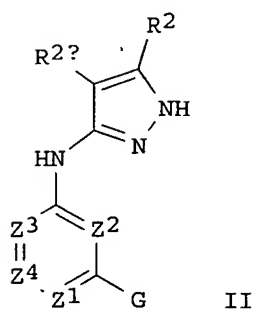
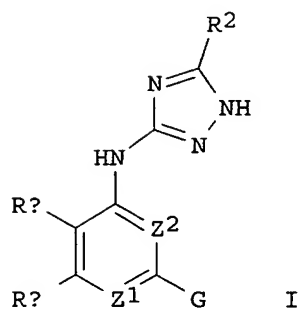
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OTHER SOURCE(S) : MARPAT 136:263164  
GI



AB Triazolamines I and pyrazolamines II [wherein G = Ring C or Ring D; Ring C = (un)substituted Ph, pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl, or 1,2,4-triazinyl; Ring D = (un)substituted monocyclic or bicyclic ring selected from aryl, heteroaryl, heterocyclyl, or carbocyclyl; Z1 = N or CR9; Z2 = N or CH; Z3 = N or CRx; Z4 = N or CRy; Rx and Ry = independently TR3, or taken together with their intervening atoms form an (un)saturated fused ring having 1-3 ring heteroatoms; R2 and R2a = independently R, TWR6; or C2R2R2a = (un)substituted fused ring containing 0-3 heteroatoms; T = a bond or alkylidene chain; W = C(R6)2O, C(R6)2SO-2, C(R6)2NR6, CO, CO2, CR6OCO, CR6OCONR6, C(R6)2NR6CO, C(R6)2NR6CO2, CR6:NNR6, CR6:NO, C(R6)2NR6NR6, C(R6)2NR6SO2NR6, C(R6)2NR6CONR6, or CONR6; R = H or (un)substituted aliphatic, (hetero)aryl, or heterocyclyl ring; R3 = R, halo, O, OR, COR, CO2R, COCOR, COCH2COR, NO2, CN, SOO-2R, N(R4)2, CON(R4)2, SO2N(R4)2, OCOR, NR4COR, NR4CO2(aliphatic), NR4N(R4)2, C:NN(R4)2, C:NOR, NR4CO(R4)2, NR4SO2N(R4)2, NR4SO2R, or OCON(R4)2; R4 = R7, COR7, CO2(aliphatic), CON(R7)2, or SO2R7; or N(R4)2 = heterocyclyl or heteroaryl; R6 and R7 = independently H or (un)substituted aliphatic group; or N(R6)2 = heterocyclyl or heteroaryl; or N(R7)2 = heterocyclyl or heteroaryl; R9 = R, halo, OR, COR, CO2R, COCOR, etc.] were prepared as protein kinase inhibitors, especially as inhibitors of Aurora-2 and GSK-3, for treating diseases such as cancer, diabetes, and Alzheimer's disease. Claims cover (heterocyclyl)triazolamines I [wherein Z1 = N or CR9; Z2 = N or CH; R9 is defined above]. Examples include data for approx. 300 invention compds. prepared by a variety of synthetic methods and bioassay results for the inhibition of GSK- $\beta$ 3, Aurora-2, ERK, and Src. For instance, the N-(4-quinazolinyl)-1H-1,2,4-triazol-3-amine III was prepared and exhibited Ki values of < 0.1  $\mu$ M for glycogen synthetase kinase 3 $\beta$  (GSK-3 $\beta$ ) and 1.0-20  $\mu$ M for Aurora-2.

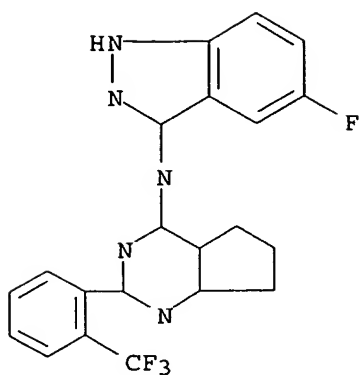
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 404827-43-6P, (1H-Indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine 404827-44-7P,  
 (7-Fluoro-1H-indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine 404827-45-8P,  
 (5,7-Difluoro-1H-indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine 404827-46-9P,  
 [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (1H-indazol-3-yl)amine 404827-47-0P, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (7-fluoro-1H-indazol-3-yl)amine  
 404827-48-1P, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (5,7-difluoro-1H-indazol-3-yl)amine  
 404889-65-2P 404891-20-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(protein kinase inhibitor; preparation of triazolamines, pyrazolamines, and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease)

RN 404827-36-7 HCAPLUS

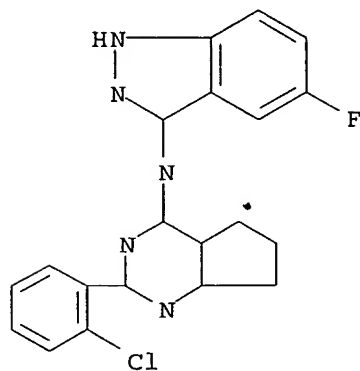
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-42-5 HCAPLUS

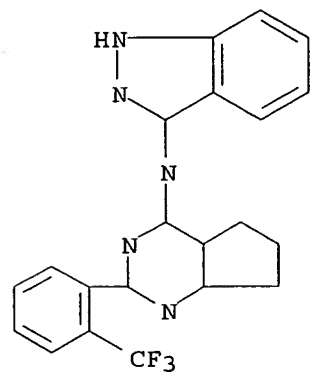
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

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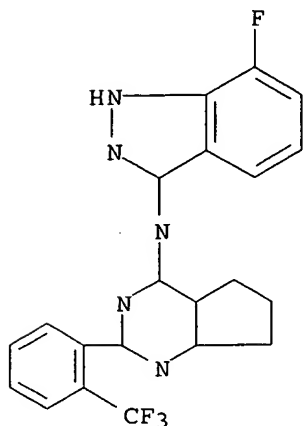
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RN 404827-44-7 HCAPLUS

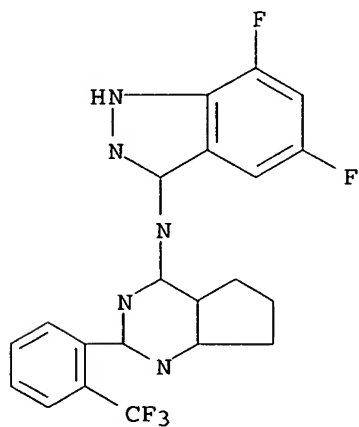
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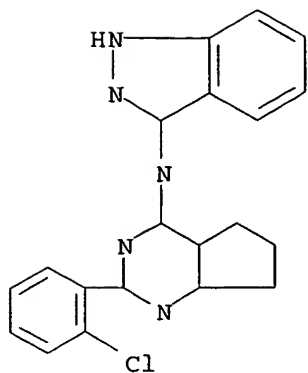
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-46-9 HCAPLUS

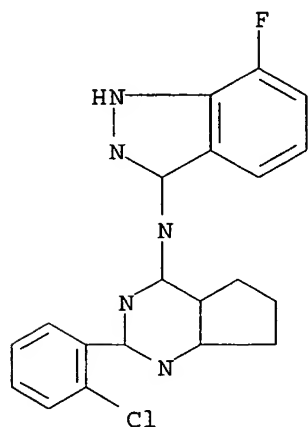
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-47-0 HCAPLUS

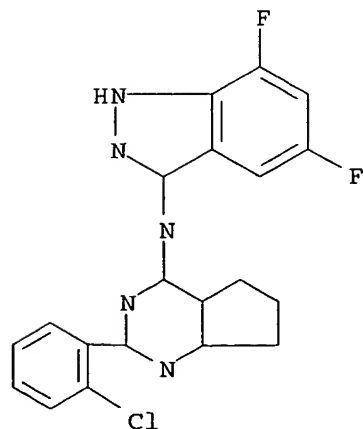
CN 1H-Indazol-3-amine, N-[2-(2-chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]-7-fluoro- (9CI) (CA INDEX NAME)



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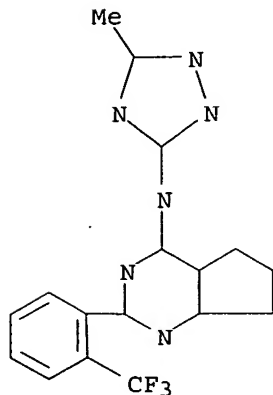
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ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404889-65-2 HCAPLUS

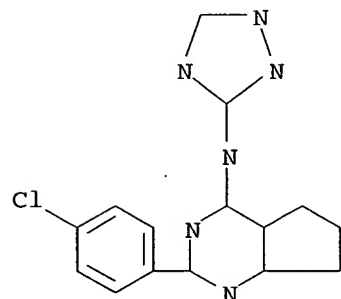
CN 5H-Cyclopentapyrimidin-4-amine, 6,7-dihydro-N-(5-methyl-1H-1,2,4-triazol-3-yl)-2-[2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404891-20-9 HCAPLUS

CN 5H-Cyclopentapyrimidin-4-amine, 2-(4-chlorophenyl)-6,7-dihydro-N-1H-1,2,4-triazol-3-yl- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L33 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:220577 HCAPLUS

DOCUMENT NUMBER: 136:247579

TITLE: Preparation of pyrazolamines and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease

INVENTOR(S): Knegt, Ronald; Bebbington, David; Binch, Hayley; Golec, Julian; Patel, Sanjay; Charrier, Jean-Damien; Kay, David; Davies, Robert; Li, Pan; Wannamaker, Marion; Forster, Cornelia; Pierce, Albert

PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 376 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

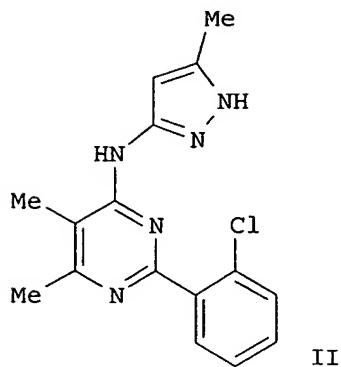
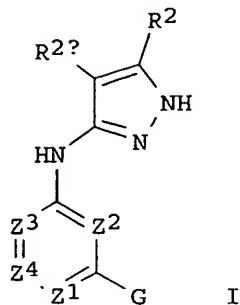
FAMILY ACC. NUM. COUNT: 14

## PATENT INFORMATION:

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US 2003064981	A1	20030403	US 2001-952836	20010914
US 6613776	B2	20030902		
US 2003064982	A1	20030403	US 2001-952875	20010914
US 2003073687	A1	20030417	US 2001-952671	20010914
US 6660731	B2	20031209		
US 2003078166	A1	20030424	US 2001-955601	20010914
US 6696452	B2	20040224		
US 2003083327	A1	20030501	US 2001-952833	20010914
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OTHER SOURCE(S) :		MARPAT 136:247579		
GI				





AB Title compds. I [wherein G = Ring C or Ring D; Ring C = (un)substituted Ph, pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl, or 1,2,4-triazinyl; Ring D = (un)substituted monocyclic or bicyclic ring selected from aryl, heteroaryl, heterocyclyl, or carbocyclyl; Z1 = N or CR<sub>9</sub>; Z2 = N or CH; Z3 = N or CR<sub>x</sub>; Z4 = N or CR<sub>y</sub>; R<sub>x</sub> and R<sub>y</sub> = independently TR<sub>3</sub>, or taken together with their intervening atoms form an (un)saturated fused ring having 1-3 ring heteroatoms; R2 and R2a = independently R, TWR<sub>6</sub>; or C2R2R2a = (un)substituted fused ring containing 0-3 heteroatoms; T = a bond or alkylidene chain; W = C(R<sub>6</sub>)<sub>2</sub>O, C(R<sub>6</sub>)<sub>2</sub>SO<sub>2</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>, CO, CO<sub>2</sub>, CR<sub>6</sub>OCO, CR<sub>6</sub>CONR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CO, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CO<sub>2</sub>, CR<sub>6</sub>:NMR<sub>6</sub>, CR<sub>6</sub>:NO, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>NR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>SO<sub>2</sub>NR<sub>6</sub>, C(R<sub>6</sub>)<sub>2</sub>NR<sub>6</sub>CONR<sub>6</sub>, or CONR<sub>6</sub>; R = H or (un)substituted aliphatic, (hetero)aryl, or heterocyclyl ring; R<sub>3</sub> = R, halo, O, OR, COR, CO<sub>2</sub>R, COCOR, COCH<sub>2</sub>COR, NO<sub>2</sub>, CN, SO<sub>2</sub>-2R, N(R<sub>4</sub>)<sub>2</sub>, CON(R<sub>4</sub>)<sub>2</sub>, SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, OCOR, NR<sub>4</sub>COR, NR<sub>4</sub>CO<sub>2</sub>(aliphatic), NR<sub>4</sub>N(R<sub>4</sub>)<sub>2</sub>, C:NN(R<sub>4</sub>)<sub>2</sub>, C:NOR, NR<sub>4</sub>CO(R<sub>4</sub>)<sub>2</sub>, NR<sub>4</sub>SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, NR<sub>4</sub>SO<sub>2</sub>R, or OCON(R<sub>4</sub>)<sub>2</sub>; R<sub>4</sub> = R<sub>7</sub>, COR<sub>7</sub>, CO<sub>2</sub>(aliphatic), CON(R<sub>7</sub>)<sub>2</sub>, or SO<sub>2</sub>R<sub>7</sub>; or N(R<sub>4</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; R<sub>6</sub> and R<sub>7</sub> = independently H or (un)substituted aliphatic group; or N(R<sub>6</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; or N(R<sub>7</sub>)<sub>2</sub> = heterocyclyl or heteroaryl; R<sub>9</sub> = R, halo, OR, COR, CO<sub>2</sub>R, COCOR, etc.] were prepared as protein kinase inhibitors, especially

as

inhibitors of Aurora-2 and GSK-3, for treating diseases such as cancer, diabetes, and Alzheimer's disease. Claims cover pyrimidinyl- and pyridinyl- pyrazolamines and indazolamines I [wherein Z1 = N, CR<sub>a</sub>, or CH; Z2 = N or CH; and at least one of Z1 or Z2 = N; Z3 = CR<sub>x</sub>; Z4 = CR<sub>y</sub>; R<sub>a</sub> = halo, OR, COR, CO<sub>2</sub>R, COCOR, NO<sub>2</sub>, CN, SO<sub>2</sub>-2R, N(R<sub>4</sub>)<sub>2</sub>, CON(R<sub>4</sub>)<sub>2</sub>, SO<sub>2</sub>N(R<sub>4</sub>)<sub>2</sub>, OCOR, NR<sub>4</sub>COR, etc.; R and R<sub>4</sub> are defined above]. Examples include data for approx. 300 invention compds. prepared by a variety of synthetic methods and bioassay results for the inhibition of GSK-β<sub>3</sub>, Aurora-2, ERK, and Src. For instance, the N-(4-pyrimidinyl)-3-pyrazolamine II was prepared and exhibited K<sub>i</sub> values of < 0.1 μM for glycogen synthetase kinase 3β (GSK-3β) and 0.1-1.0 μM for Aurora-2.

IT **404827-36-7P** **404827-42-5P**, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (5-fluoro-1H-indazol-3-yl)amine  
**404827-43-6P**, (1H-Indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine **404827-44-7P**, (7-Fluoro-1H-indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine **404827-45-8P**, (5,7-Difluoro-1H-indazol-3-yl) [2-(2-trifluoromethylphenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]amine **404827-46-9P**, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (1H-indazol-3-yl)amine **404827-47-0P**, [2-(2-Chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl] (7-fluoro-1H-indazol-3-yl)amine **404827-48-1P**, [2-(2-Chlorophenyl)-6,7-dihydro-5H-

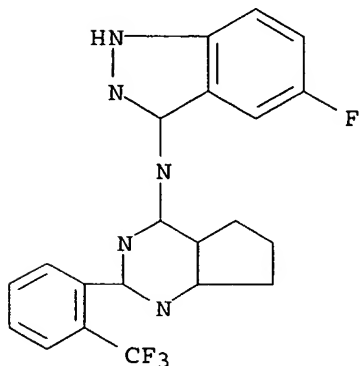
cyclopentapyrimidin-4-yl] (5,7-difluoro-1H-indazol-3-yl)amine

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(protein kinase inhibitor; preparation of heterocyclylpyrazolamines and analogs as protein kinase inhibitors for treatment of cancer, diabetes, and Alzheimer's disease)

RN 404827-36-7 HCAPLUS

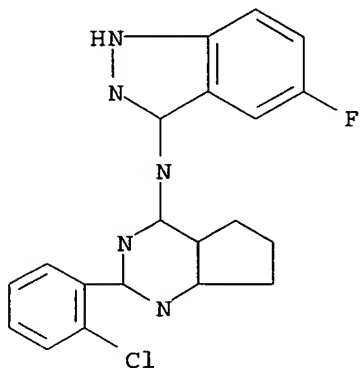
CN 1H-Indazol-3-amine, N-[6,7-dihydro-2-[2-(trifluoromethyl)phenyl]-5H-cyclopentapyrimidin-4-yl]-5-fluoro- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-42-5 HCAPLUS

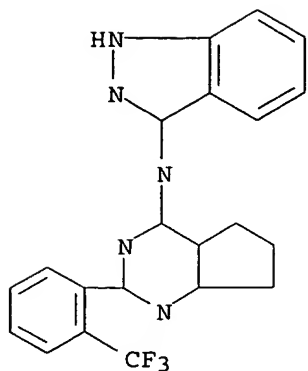
CN 1H-Indazol-3-amine, N-[2-(2-chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]-5-fluoro- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-43-6 HCAPLUS

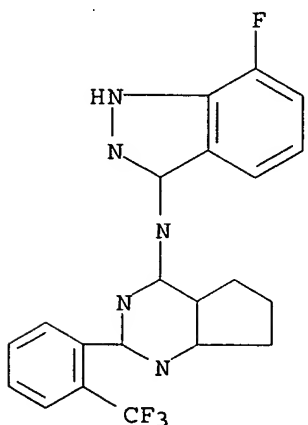
CN 1H-Indazol-3-amine, N-[6,7-dihydro-2-[2-(trifluoromethyl)phenyl]-5H-cyclopentapyrimidin-4-yl]- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-44-7 HCAPLUS

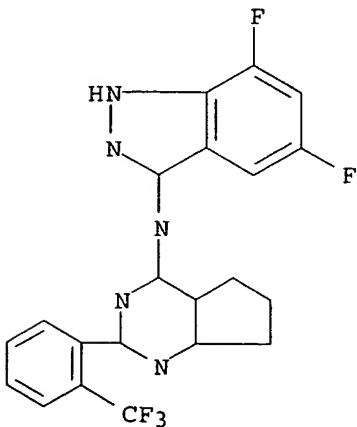
CN 1H-Indazol-3-amine, N-[6,7-dihydro-2-[2-(trifluoromethyl)phenyl]-5H-cyclopentapyrimidin-4-yl]-7-fluoro- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-45-8 HCAPLUS

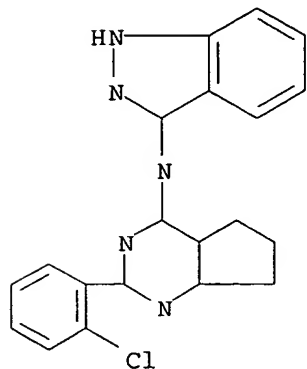
CN 1H-Indazol-3-amine, N-[6,7-dihydro-2-[2-(trifluoromethyl)phenyl]-5H-cyclopentapyrimidin-4-yl]-5,7-difluoro- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-46-9 HCAPLUS

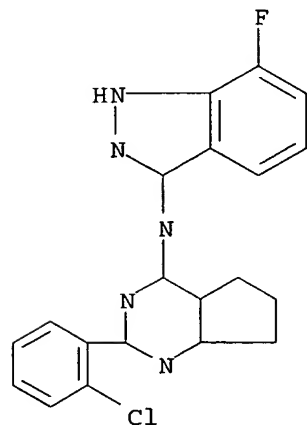
CN 1H-Indazol-3-amine, N-[2-(2-chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-47-0 HCAPLUS

CN 1H-Indazol-3-amine, N-[2-(2-chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]-7-fluoro- (9CI) (CA INDEX NAME)

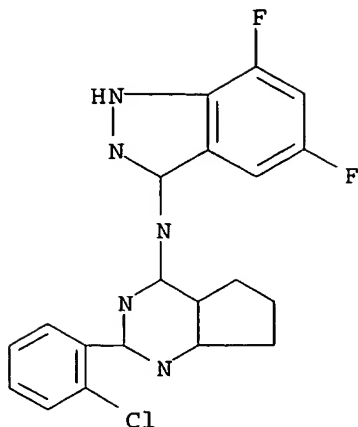


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 404827-48-1 HCAPLUS

CN 1H-Indazol-3-amine, N-[2-(2-chlorophenyl)-6,7-dihydro-5H-cyclopentapyrimidin-4-yl]-5,7-difluoro- (9CI) (CA INDEX NAME)





ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE  
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:401560 HCAPLUS

DOCUMENT NUMBER: 125:58535

TITLE: Preparation of pyrimidine derivatives as gastric  
 secretion inhibitors

INVENTOR(S): Lee, Jong Wook; Chae, Jeong Seok; Kim, Chang Seop;  
 Kim, Jae Kyu; Lim, Dae Sung; Shon, Moon Kyu; Choi,  
 Yeon Shik; Lee, Sang Ho

PATENT ASSIGNEE(S): Yuhan Corporation, S. Korea

SOURCE: PCT Int. Appl., 93 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9605177	A1	19960222	WO 1995-KR105	19950810
W: AU, CA, CN, JP, RU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
KR 157075	B1	19981116	KR 1994-19997	19940813
KR 157076	B1	19981116	KR 1994-19998	19940813
CA 2197298	AA	19960222	CA 1995-2197298	19950810
CA 2197298	C	19991019		
AU 9531225	A1	19960307	AU 1995-31225	19950810
AU 688087	B2	19980305		
EP 775120	A1	19970528	EP 1995-927092	19950810
EP 775120	B1	20030604		
R: CH, DE, ES, FR, GB, IT, LI, SE				
CN 1155281	A	19970723	CN 1995-194599	19950810
CN 1102144	B	20030226		
JP 09509188	T2	19970916	JP 1995-507208	19950810
JP 2896532	B2	19990531		
RU 2129549	C1	19990427	RU 1997-104208	19950810
ES 2201112	T3	20040316	ES 1995-927092	19950810
US 5750531	A	19980512	US 1997-776220	19970123
HK 1001618	A1	20030822	HK 1998-100535	19980121

PRIORITY APPLN. INFO.:

KR 1994-19997

A 19940813

KR 1994-19998

A 19940813

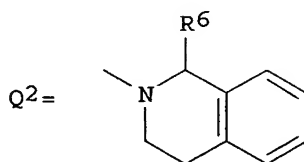
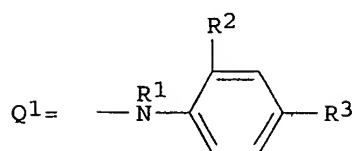
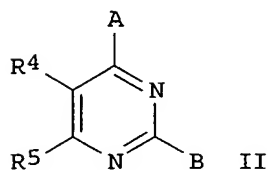
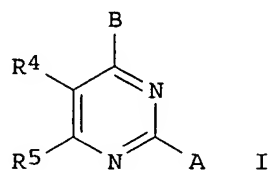
WO 1995-KR105

W 19950810

OTHER SOURCE(S):

MARPAT 125:58535

GI



AB The title compds. I and II [R<sup>4</sup> and R<sup>5</sup>, which may be the same or different, are independently hydrogen or a C1-C3 alkyl group, or jointly form a cyclopentyl or cyclohexyl ring; A is Q<sup>1</sup> wherein R<sup>1</sup> and R<sup>2</sup> are, independently of each other, hydrogen or a C1-C3 alkyl group, and R<sup>3</sup> is hydrogen, a C1-C3 alkyl group or a halogen; and B is Q<sup>2</sup>, etc.; R<sup>6</sup> is hydrogen or a C1-C3 alkyl group] are prepared 2-(2-Methyl-4-fluorophenylamino)-4-(1-methyl-1,2,3,4-tetrahydroisoquinolin-2-yl)pyrimidine hydrochloride (preparation given) in vitro showed IC<sub>50</sub> of 5.4 μM against H<sup>+</sup>/K<sup>+</sup> ATPase, vs. 5.8 μM for omeprazole. The inhibition of enzyme activity by compds. of this invention is reversible.

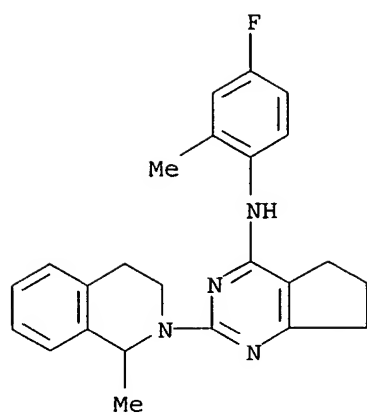
IT 178308-05-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidine derivs. as gastric secretion inhibitors)

RN 178308-05-9 HCAPLUS

CN 5H-Cyclopentapyrimidin-4-amine, 2-(3,4-dihydro-1-methyl-2(1H)-isoquinolinyl)-N-(4-fluoro-2-methylphenyl)-6,7-dihydro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

=> file caold

FILE 'CAOLD' ENTERED AT 09:48:37 ON 15 AUG 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

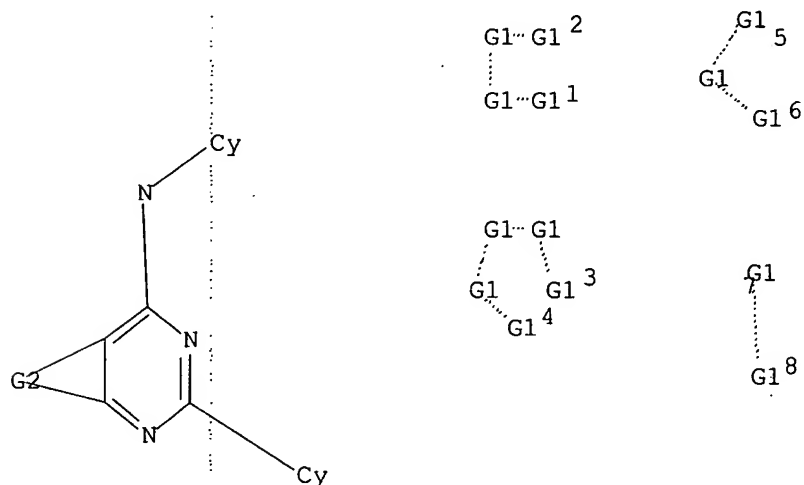
This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d que 132

L3 STR



G1 C, O, S, N

G2 [01-02], [03-04], [05-06], [07-08]

Structure attributes must be viewed using STN Express query preparation.

L5 2753 SEA FILE=REGISTRY SSS FUL L3

L6 181 SEA FILE=CAPLUS ABB=ON PLU=ON L5

L30 14 SEA FILE=CAOLD ABB=ON PLU=ON L5

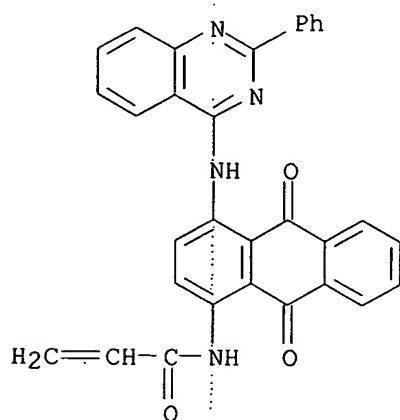
L31 14 SEA FILE=CAOLD ABB=ON PLU=ON (L30 OR L6)

L32 14 SEA FILE=CAOLD ABB=ON PLU=ON L31 NOT (PY>2003 OR AY>2003 OR PRY>2003)

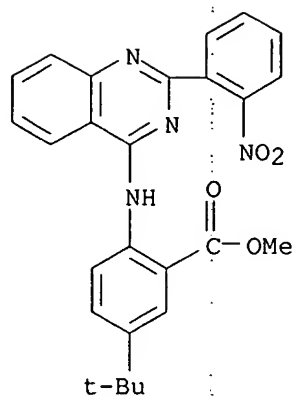


=> d bib hitstr 132 tot

L32 ANSWER 1 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
 AN CA64:6797h CAOLD  
 TI anthraquinone pigments  
 PA Badische Anilin- & Soda-Fabrik A.-G.  
 DT Patent  
 PATENT NO. KIND DATE  
 -----  
 PI NL 299516  
 IT 5003-45-2  
 RN 5003-45-2 CAOLD  
 CN Acrylamide, N-[4-[(2-phenyl-4-quinazolinyl)amino]-1-anthraquinonyl]- (7CI, 8CI) (CA INDEX NAME)

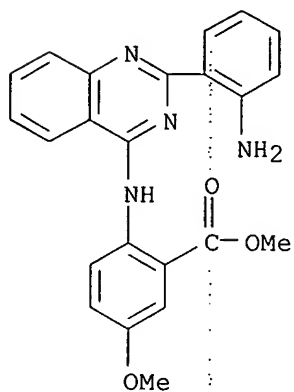


L32 ANSWER 2 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
 AN CA62:16737d CAOLD  
 TI biochem; and morphologic properties of a lactating mammary tumor line  
 AU Hilf, Russell; Michel, I.; Bell, C.; Freeman, J. J.; Borman, A.  
 IT 2475-69-6 2475-72-1 2475-73-2  
 2475-75-4 2475-76-5 4310-07-0  
 98024-45-4 102287-24-1 104998-19-8  
 RN 2475-69-6 CAOLD  
 CN Benzoic acid, 5-(1,1-dimethylethyl)-2-[[2-(2-nitrophenyl)-4-quinazolinyl]amino]-, methyl ester (9CI) (CA INDEX NAME)



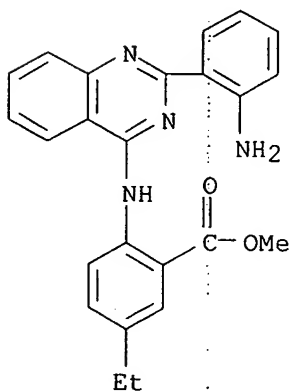
RN 2475-72-1 CAOLD

CN Benzoic acid, 2-[[2-(2-aminophenyl)-4-quinazolinyl]amino]-5-methoxy-, methyl ester (9CI) (CA INDEX NAME)



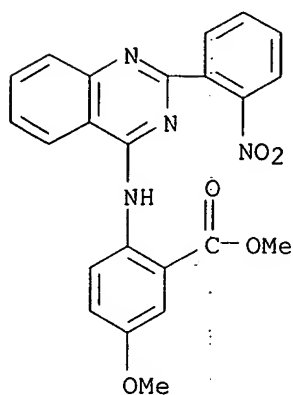
RN 2475-73-2 CAOLD

CN Benzoic acid, 2-[[2-(2-aminophenyl)-4-quinazolinyl]amino]-5-ethyl-, methyl ester (9CI) (CA INDEX NAME)



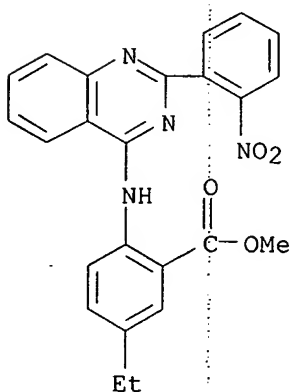
RN 2475-75-4 CAOLD

CN Benzoic acid, 5-methoxy-2-[[2-(2-nitrophenyl)-4-quinazolinyl]amino]-, methyl ester (9CI) (CA INDEX NAME)



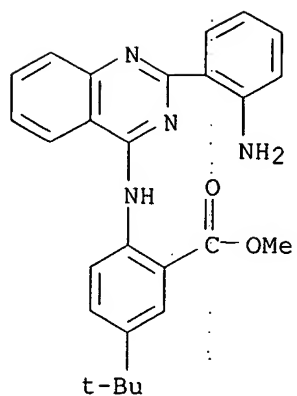
RN 2475-76-5 CAOLD

CN Benzoic acid, 5-ethyl-2-[[2-(2-nitrophenyl)-4-quinazolinyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

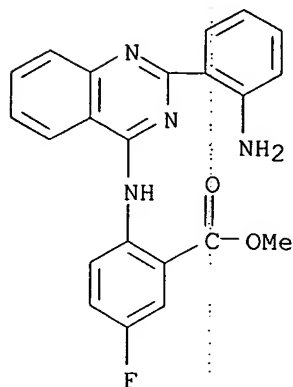


RN 4310-07-0 CAOLD

CN Anthranilic acid, N-[2-(o-aminophenyl)-4-quinazolinyl]-5-tert-butyl-, methyl ester (7CI, 8CI) (CA INDEX NAME)



RN 98024-45-4 CAOLD  
 CN Anthranilic acid, N-[2-(o-aminophenyl)-4-quinazolinyl]-5-fluoro-, methyl ester (7CI) (CA INDEX NAME)

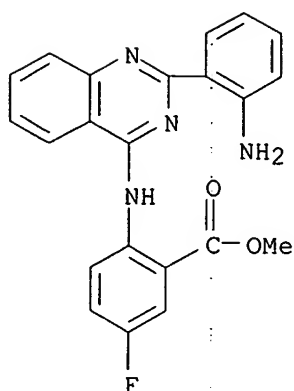


RN 102287-24-1 CAOLD  
 CN Anthranilic acid, N-[2-(o-aminophenyl)-4-quinazolinyl]-5-fluoro-, methyl ester, Ac deriv. (7CI) (CA INDEX NAME)

CM 1

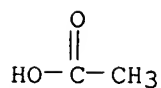
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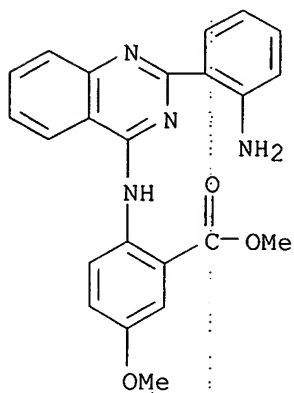


CM 2

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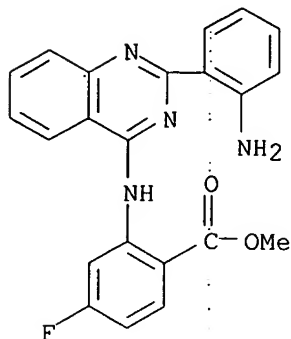
RN 104998-19-8 CAOLD  
CN Anthranilic acid, N-[2-(o-aminophenyl)-4-quinazolinyl]-5-methoxy-, methyl ester, acetyl deriv. (7CI) (CA INDEX NAME)



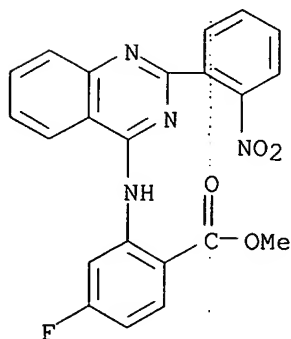
D1-Ac

L32 ANSWER 3 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
AN CA62:16737b CAOLD  
TI influence of peripheral ring substitution on the carcinogenicity of tricycloquinazoline  
AU Baldwin, Robert W.; Cunningham, G. J.; Dean, H. G.; Partridge, M. W.; Surtees, S. J.; Vipond, H. J.

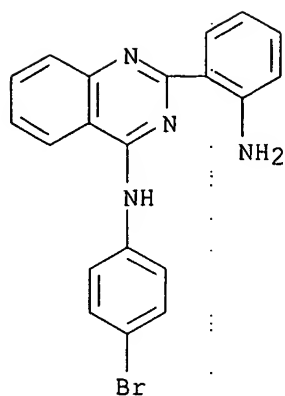
IT 2475-70-9 2475-74-3  
 RN 2475-70-9 CAOLD  
 CN Benzoic acid, 2-[[2-(2-aminophenyl)-4-quinazolinyl]amino]-4-fluoro-,  
 methyl ester (9CI) (CA INDEX NAME)



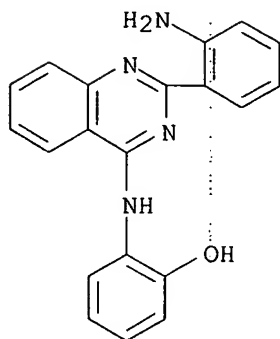
RN 2475-74-3 CAOLD  
 CN Benzoic acid, 4-fluoro-2-[[2-(2-nitrophenyl)-4-quinazolinyl]amino]-,  
 methyl ester (9CI) (CA INDEX NAME)



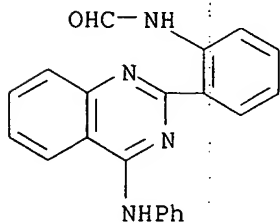
L32 ANSWER 4 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
 AN CA62:561f CAOLD  
 TI cyclic amidines - (XVIII) synthesis of tricycloquinazolines by  
 cyclodehydrogenation, (XIX) derivs. of triazabenzonaphthanthracene  
 AU Partridge, Maurice W.; Slorach, S. A.; Vipond, H. J.  
 IT 855-89-0 856-01-9 857-68-1  
 859-13-2 859-14-3 860-40-2  
 862-07-7 863-07-0 863-08-1  
 863-93-4 976-20-5 1062-47-1  
 RN 855-89-0 CAOLD  
 CN Quinazoline, 2-(o-aminophenyl)-4-(p-bromoanilino)- (7CI, 8CI) (CA INDEX  
 NAME)



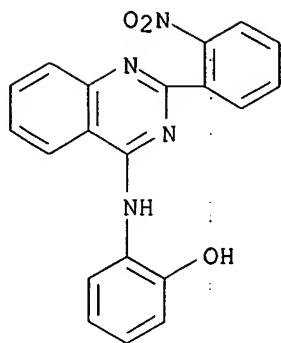
RN 856-01-9 CAOLD  
 CN Phenol, o-[[2-(o-aminophenyl)-4-quinazolinyl]amino]- (7CI, 8CI) (CA INDEX NAME)



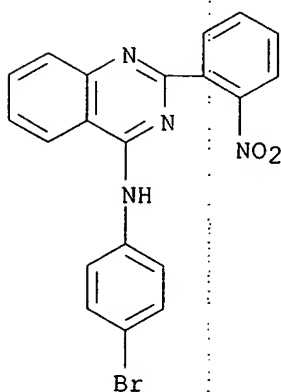
RN 857-68-1 CAOLD  
 CN Formanilide, 2'-(4-anilino-2-quinazolinyl)- (7CI, 8CI) (CA INDEX NAME)



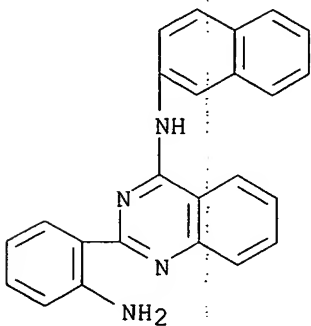
RN 859-13-2 CAOLD  
 CN Phenol, o-[[2-(o-nitrophenyl)-4-quinazolinyl]amino]- (7CI, 8CI) (CA INDEX NAME)



RN 859-14-3 CAOLD  
CN Quinazoline, 4-(p-bromoanilino)-2-(o-nitrophenyl)- (7CI, 8CI) (CA INDEX NAME)

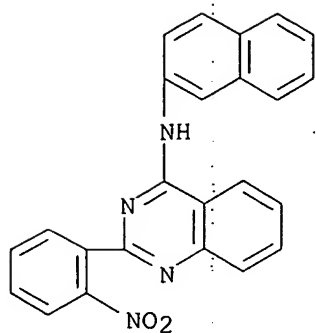


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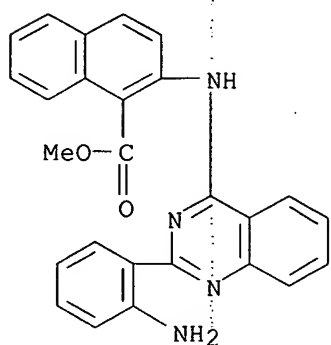


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CN Quinazoline, 4-(2-naphthylamino)-2-(o-nitrophenyl)- (7CI, 8CI) (CA INDEX NAME)

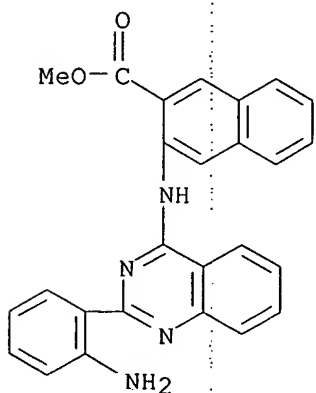




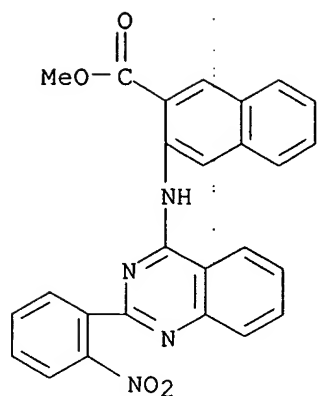
RN 863-07-0 CAOLD  
CN 1-Naphthoic acid, 2-[[2-(o-aminophenyl)-4-quinazolinyl]amino]-, methyl ester (7CI, 8CI) (CA INDEX NAME)



RN 863-08-1 CAOLD  
CN 2-Naphthoic acid, 3-[[2-(o-aminophenyl)-4-quinazolinyl]amino]-, methyl ester (7CI, 8CI) (CA INDEX NAME)

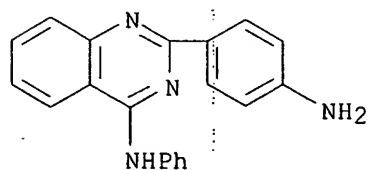


RN 863-93-4 CAOLD  
CN 2-Naphthoic acid, 3-[[2-(o-nitrophenyl)-4-quinazolinyl]amino]-, methyl ester (7CI, 8CI) (CA INDEX NAME)



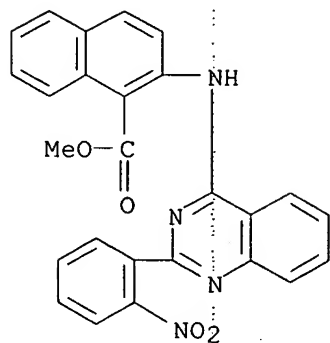
RN 976-20-5 CAOLD

CN Quinazoline, 2-(p-aminophenyl)-4-anilino- (7CI, 8CI) (CA INDEX NAME)



RN 1062-47-1 CAOLD

CN 1-Naphthoic acid, 2-[[2-(o-nitrophenyl)-4-quinazolinyl]amino]-, methyl ester (7CI, 8CI) (CA INDEX NAME)



L32 ANSWER 5 OF 14 CAOLD COPYRIGHT 2006 ACS on STN

AN CA61:16204a CAOLD

TI dyes (vat)

PA CIBA Ltd.

DT Patent

PATENT NO.	KIND	DATE
BE 635078		
GB 1027565		
106977-74-6		
106977-83-7		
106977-84-8		
107988-55-6		

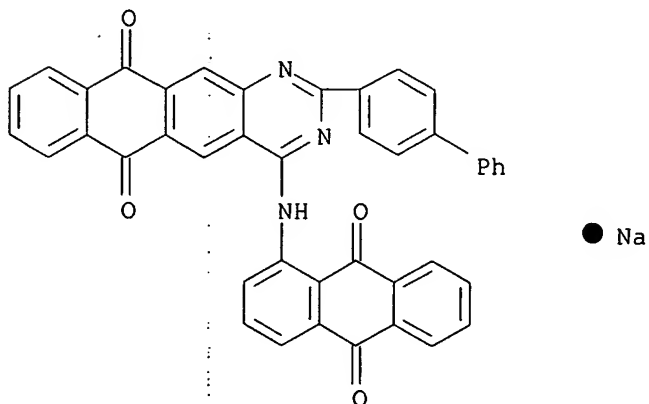
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GB 1027565

IT 106977-74-6 106977-83-7 106977-84-8

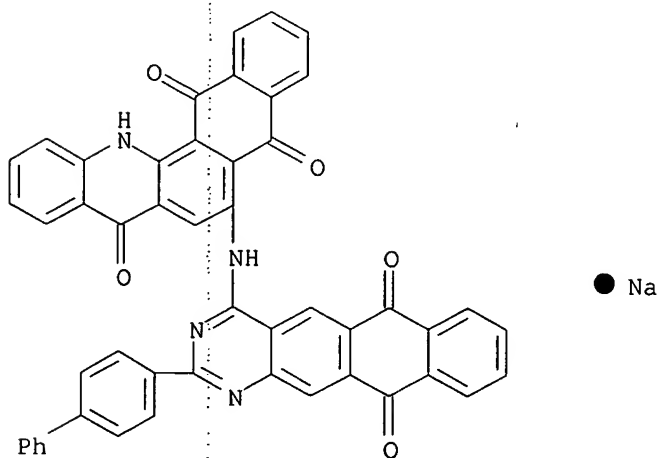
107988-55-6

RN 106977-74-6 CAOLD  
 CN Naphtho[2,3-g]quinazoline-6,11-dione, 4-(1-anthraquinonylamino)-2-(4-biphenyl)-, sulfo deriv., sodium salt (7CI) (CA INDEX NAME)



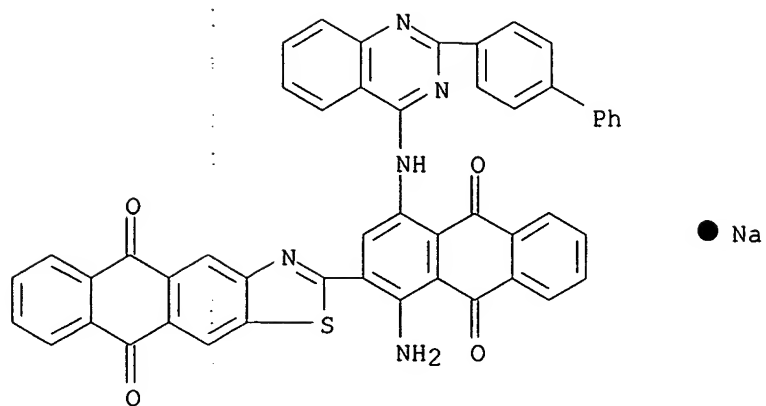
D1-SO<sub>3</sub>H

RN 106977-83-7 CAOLD  
 CN Naphth[2,3-c]acridan-5,8,14-trione, 6-[[2-(4-biphenyl)-6,11-dihydro-6,11-dioxonaphtho[2,3-g]quinazolin-4-yl]amino]-, sulfo deriv., sodium salt (7CI) (CA INDEX NAME)



D1-SO<sub>3</sub>H

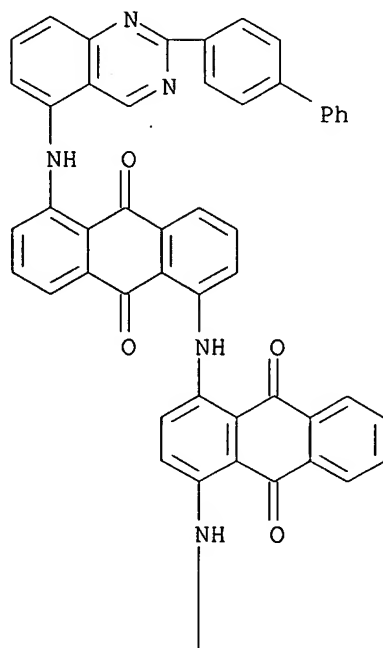
RN 106977-84-8 CAOLD  
 CN Anthra[2,3-d]thiazole-5,10-dione, 2-[1-amino-4-[[2-(4-biphenyl)-4-quinazolinyl]amino]-2-anthraquinonyl]-, sulfo deriv., sodium salt (7CI) (CA INDEX NAME)

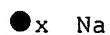
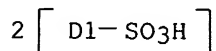
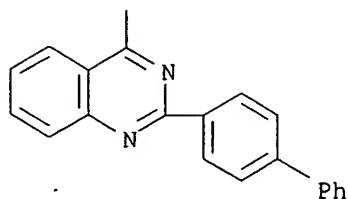


D1-SO<sub>3</sub>H

RN 107988-55-6 CAOLD  
 CN Anthraquinone, 1,1'-iminobis[4-[[2-(4-biphenyl)-4-quinazolinyl]amino]-, disulfo deriv., sodium salt (7CI) (CA INDEX NAME)

PAGE 1-A





L32 ANSWER 6 OF 14 CAOLD COPYRIGHT 2006 ACS on STN

AN CA61:9615f CAOLD

TI benzanthraquinoneacridine vat dyes

AU Wunderlich, Klaus; Bien, H. S.; Baumann, F.

DT Patent

TI dyes (benzanthraquinoneacridine vat)

PA Farbenfabriken Bayer A.-G.

DT Patent

PATENT NO.	KIND	DATE
US 3134781		1964
DE 1192349		
GB 994216		

PI US 3134781 1964

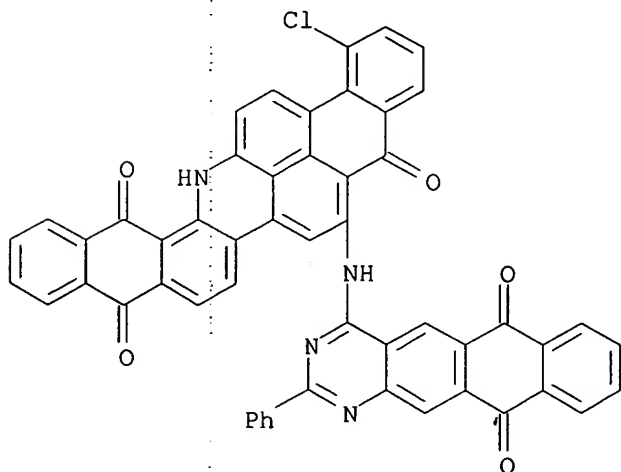
DE 1192349

GB 994216

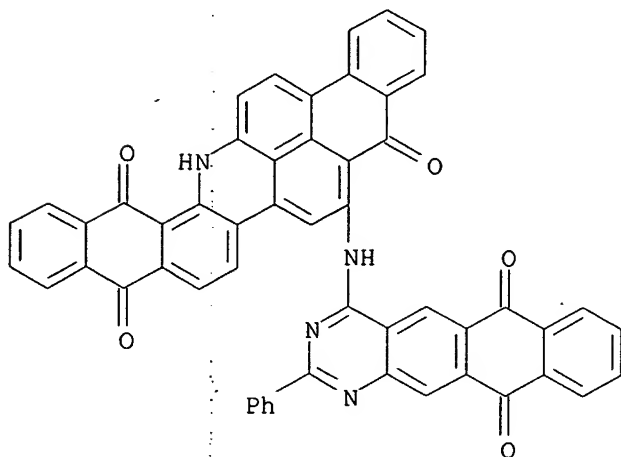
IT 106546-18-3 106546-19-4

RN 106546-18-3 CAOLD

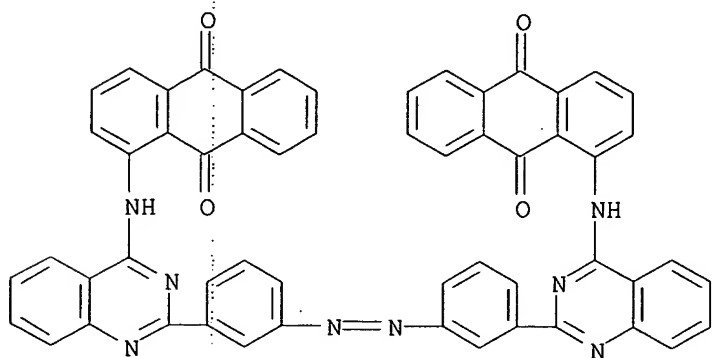
CN Anthra[2,1,9-mna]naphth[2,3-h]acridine-5,10,15(16H)-trione,  
1-chloro-6-[(6,11-dihydro-6,11-dioxo-2-phenylnaphtho[2,3-g]quinazolin-4-yl)amino]- (7CI) (CA INDEX NAME)



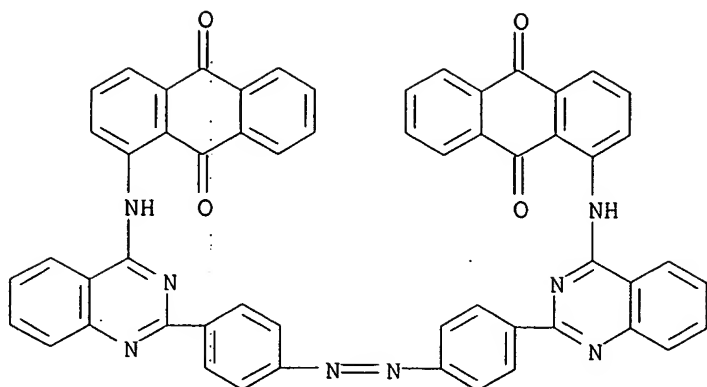
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 (7CI) (CA INDEX NAME)



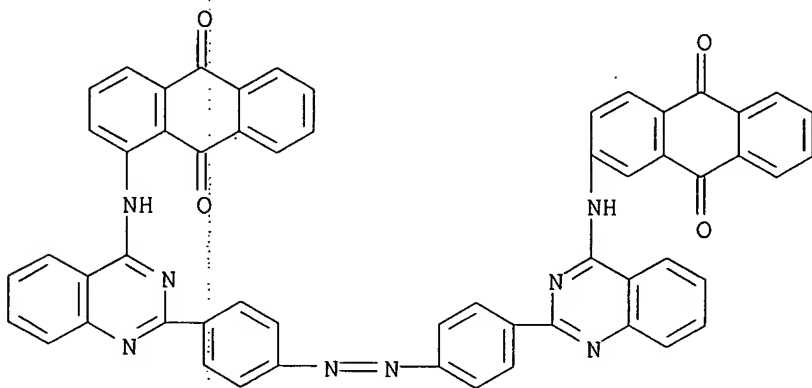
L32 ANSWER 7 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
 AN CA61:1980h CAOLD  
 TI bis[4-(anthraquinonylamino)-2-quinazolyl]-azobenzenes and -azobiphenyls  
 PA Badische Anilin- & Soda-Fabrik A.-G.  
 DT Patent  
 TI bis[4-(anthraquinonylamino)-2-quinazolyl]-azobenzenes and-azobiphenyls  
 AU Weidinger, Hans; Haese, H. G.  
 DT Patent  
 IT 106713-05-7 106713-06-8 106784-84-3  
 107101-22-4 107387-41-7 107420-02-0  
 107928-72-3  
 RN 106713-05-7 CAOLD  
 CN Anthraquinone, 1,1'-[azobis(m-phenylene-2,4-quinazolinediylimino)]di-  
 (7CI) (CA INDEX NAME)



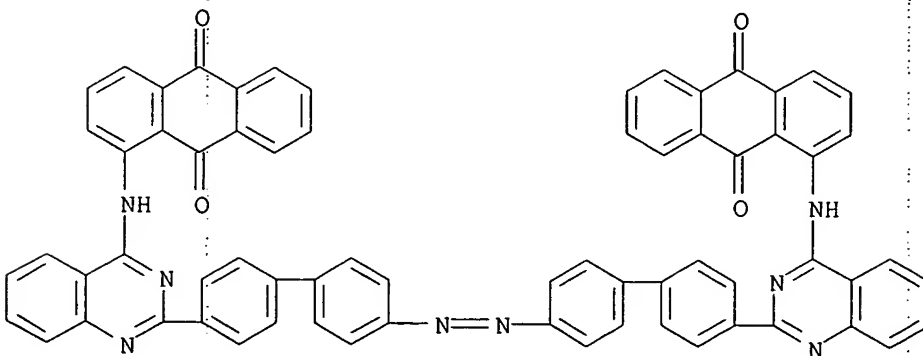
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 (7CI) (CA INDEX NAME)



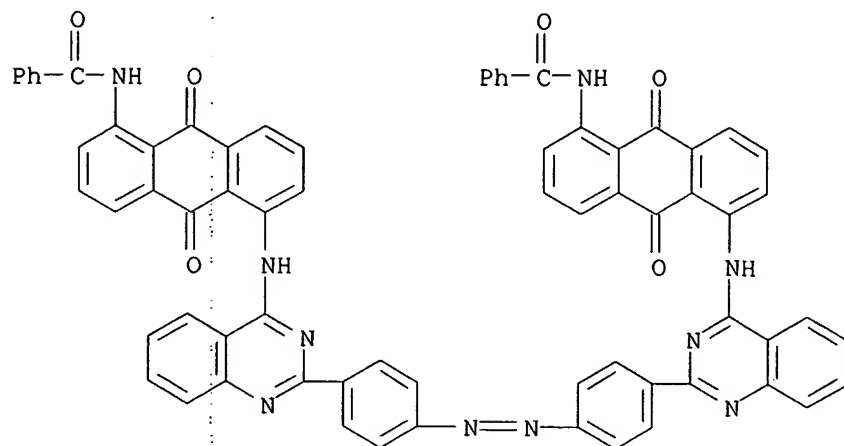
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(7CI) (CA INDEX NAME)



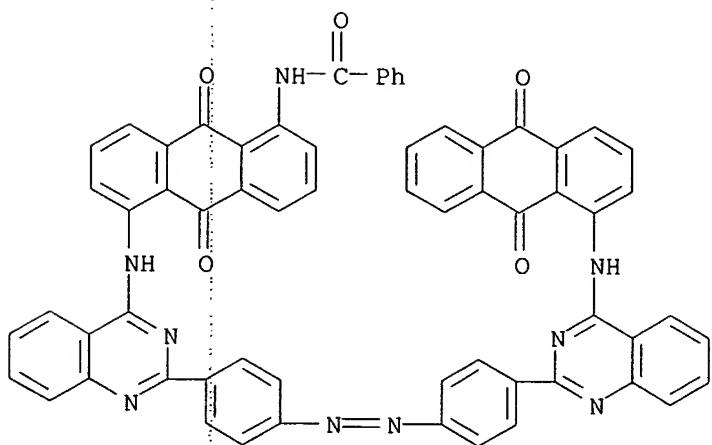
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CN Anthraquinone, 1,1'-[azobis(4',4-biphenylylene-2,4-quinazolinediylimino)]di- (7CI) (CA INDEX NAME)



RN 107387-41-7 CAOLD  
 CN Anthraquinone, 1,1'-[azobis(p-phenylene-2,4-quinazolinediylimino)]bis[5-benzamido- (7CI) (CA INDEX NAME)]

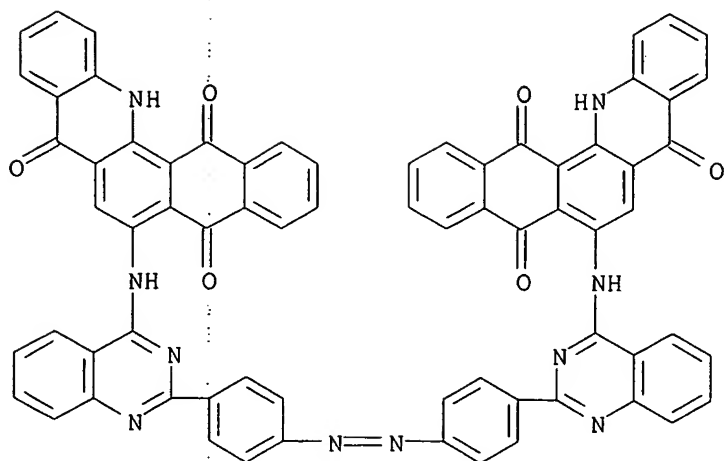


RN 107420-02-0 CAOLD  
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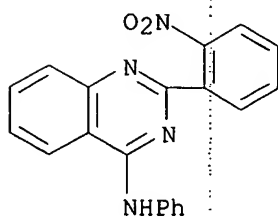


RN 107928-72-3 CAOLD  
 CN Naphth[2,3-c]acridan-5,8,14-trione, 6,6'-[azobis(p-phenylene-2,4-quinazolinediylimino)]bis- (7CI) (CA INDEX NAME)]

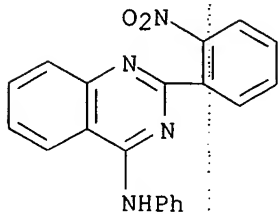




L32 ANSWER 8 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
 AN CA59:5170e CAOLD  
 TI cyclic amidines - (XVI) tetraazanaphtho[1,2,3-fg]naphthacenes  
 AU Parfitt, Robert T.; Partridge, M. W.; Vipond, H. J.  
 IT **94688-16-1 106300-56-5**  
 RN 94688-16-1 CAOLD  
 CN Quinazoline, 4-anilino-2-(o-nitrophenyl)- (7CI) (CA INDEX NAME)



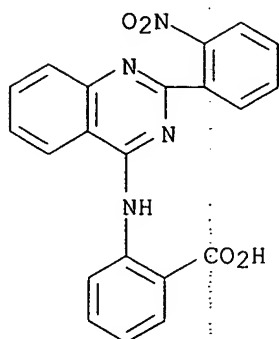
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 CN Quinazoline, 4-anilino-2-(o-nitrophenyl)-, hydrochloride (7CI) (CA INDEX NAME)



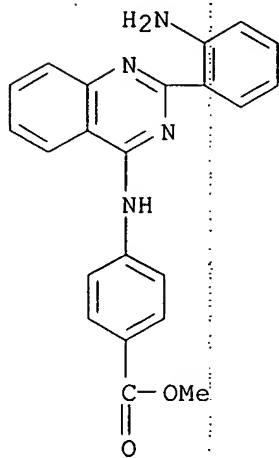
● HCl

L32 ANSWER 9 OF 14 CAOLD COPYRIGHT 2006 ACS on STN

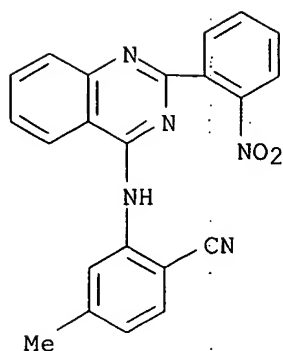
AN CA57:12490c CAOLD  
 TI cyclic amidines - (XV) derivs. of tricycloquinazoline  
 AU Partridge, Maurice W.; Vipond, H. J.; Waite, J. A.  
 IT 94873-30-0 95024-95-6 95139-11-0  
 95139-13-2 95162-70-2 95162-72-4  
 95225-67-5 95435-27-1 96060-81-0  
 96262-63-4 100088-90-2 100266-70-4  
 100266-71-5 100322-03-0 100410-65-9  
 104534-33-0 107159-62-6  
 RN 94873-30-0 CAOLD  
 CN Anthranilic acid, N-[2-(o-nitrophenyl)-4-quinazolinyl]- (7CI) (CA INDEX NAME)



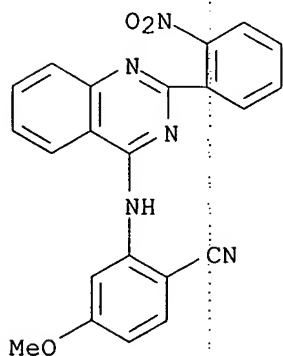
RN 95024-95-6 CAOLD  
 CN Benzoic acid, p-[[2-(o-aminophenyl)-4-quinazolinyl]amino]-, methyl ester (7CI) (CA INDEX NAME)



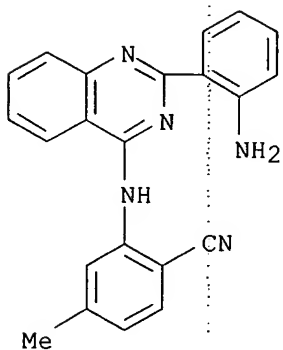
RN 95139-11-0 CAOLD  
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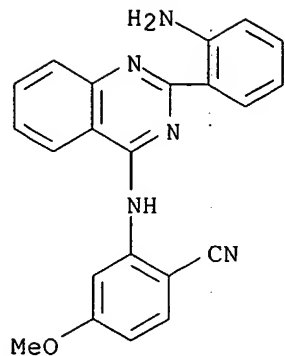
RN 95139-13-2 CAOLD  
 CN p-Anisonitrile, 2-[[2-(o-nitrophenyl)-4-quinazolinyl]amino]- (7CI) (CA  
 INDEX NAME)



RN 95162-70-2 CAOLD  
 CN p-Tolunitrile, 2-[[2-(o-aminophenyl)-4-quinazolinyl]amino]- (7CI) (CA  
 INDEX NAME)

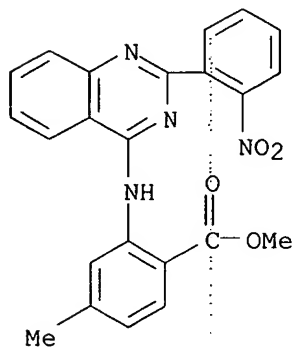


RN 95162-72-4 CAOLD  
 CN p-Anisonitrile, 2-[[2-(o-aminophenyl)-4-quinazolinyl]amino]- (7CI) (CA  
 INDEX NAME)



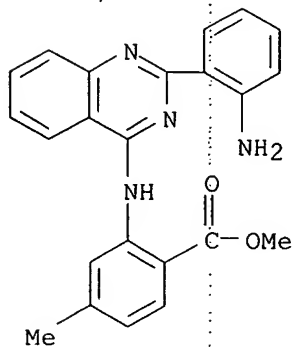
RN 95225-67-5 CAOLD

CN p-Toluic acid, 2-[[2-(o-nitrophenyl)-4-quinazolinyl]amino]-, methyl ester  
(7CI) (CA INDEX NAME)



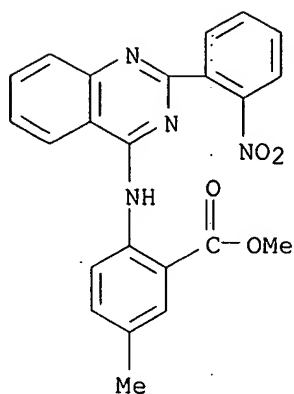
RN 95435-27-1 CAOLD

CN p-Toluic acid, 2-[[2-(o-aminophenyl)-4-quinazolinyl]amino]-, methyl ester  
(7CI) (CA INDEX NAME)



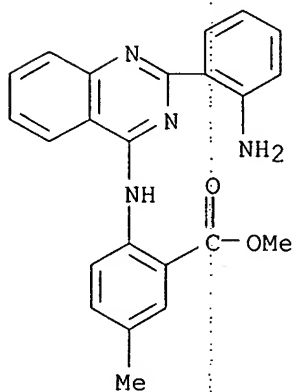
RN 96060-81-0 CAOLD

CN m-Toluic acid, 6-[[2-(o-nitrophenyl)-4-quinazolinyl]amino]-, methyl ester  
(7CI) (CA INDEX NAME)



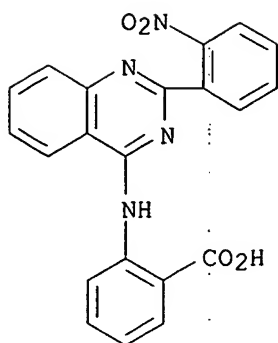
RN 96262-63-4 CAOLD

CN m-Toluic acid, 6-[[2-(o-aminophenyl)-4-quinazolinyl]amino]-, methyl ester  
(7CI) (CA INDEX NAME)



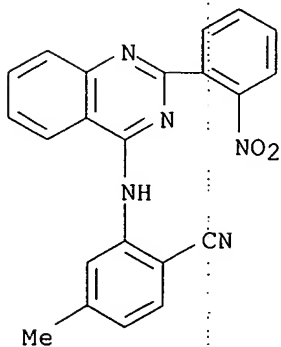
RN 100088-90-2 CAOLD

CN Anthranilic acid, N-[2-(o-nitrophenyl)-4-quinazolinyl]-, hydrochloride  
(7CI) (CA INDEX NAME)



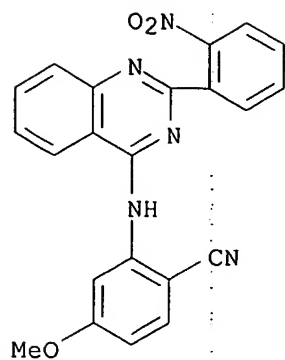
● x HCl

RN 100266-70-4 CAOLD  
CN p-Tolunitrile, 2-[[2-(o-nitrophenyl)-4-quinazolinyl]amino]-, hydrochloride  
(7CI) (CA INDEX NAME)



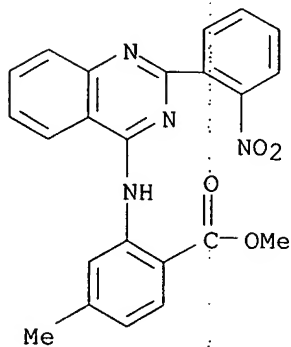
● x HCl

RN 100266-71-5 CAOLD  
CN p-Anisonitrile, 2-[[2-(o-nitrophenyl)-4-quinazolinyl]amino]-, hydrochloride (7CI) (CA INDEX NAME)



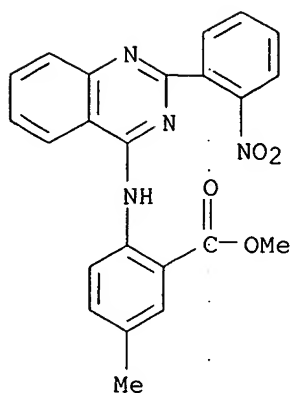
● x HCl

RN 100322-03-0 CAOLD  
CN p-Toluic acid, 2-[[2-(o-nitrophenyl)-4-quinazolinyl]amino]-, methyl ester, hydrochloride (7CI) (CA INDEX NAME)



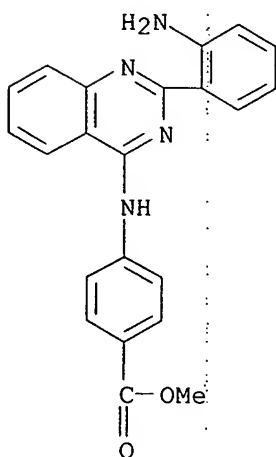
● HCl

RN 100410-65-9 CAOLD  
CN m-Toluic acid, 6-[[2-(o-nitrophenyl)-4-quinazolinyl]amino]-, methyl ester, hydrochloride (7CI) (CA INDEX NAME)



● x HCl

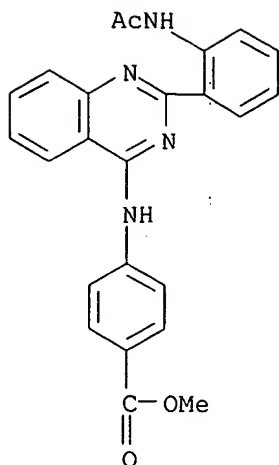
RN 104534-33-0 CAOLD  
CN Benzoic acid, p-[[2-(o-aminophenyl)-4-quinazolinyl]amino]-, methyl ester, hydrochloride (7CI) (CA INDEX NAME)



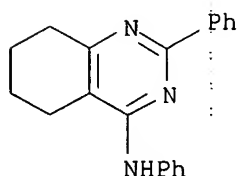
● HCl

RN 107159-62-6 CAOLD  
CN Benzoic acid, p-[[2-(o-acetamidophenyl)-4-quinazolinyl]amino]-, methyl ester (7CI) (CA INDEX NAME)





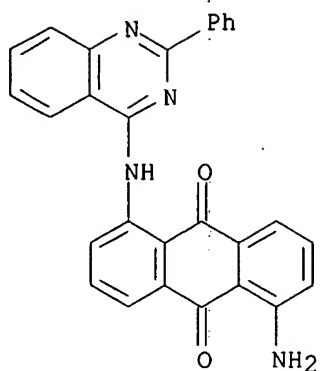
L32 ANSWER 10 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
 AN CA57:4655f CAOLD  
 TI oxathiane synthesis by mercuric salt ring closure  
 AU Summerbell, Robert K.; Poklacki, E. S.  
 IT **88828-40-4**  
 RN 88828-40-4 CAOLD  
 CN Quinazoline, 4-anilino-5,6,7,8-tetrahydro-2-phenyl- (7CI) (CA INDEX NAME)



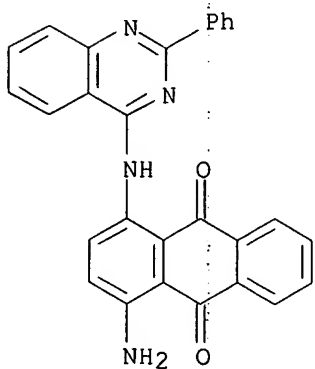
L32 ANSWER 11 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
 AN CA55:27383a CAOLD  
 TI 1,4-,1,5-, and 1,8-diaminoanthraquinones (N-substituted)  
 PA Badische Anilin- & Soda-Fabrik Akt.-Ges.  
 DT Patent  
 TI N-substituted 1,4- 1,5- and 1,8-diaminoanthraquinones  
 AU Ebel, Friedrich; Weldinger, H.  
 DT Patent  

PATENT NO.	KIND	DATE
DE 1099543		
<b>116027-31-7</b>	<b>116028-61-6</b>	<b>121600-19-9</b>
<b>121991-09-1</b>		

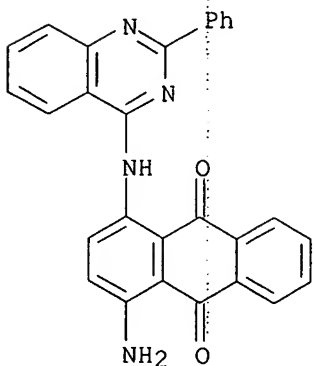
 RN 116027-31-7 CAOLD  
 CN Anthraquinone, 1-amino-5-[(2-phenyl-4-quinazolinyl)amino]- (6CI) (CA INDEX NAME)



RN 116028-61-6 CAOLD  
 CN Anthraquinone, 1-amino-4-[(2-phenyl-4-quinazolinyl)amino]- (6CI) (CA INDEX NAME)

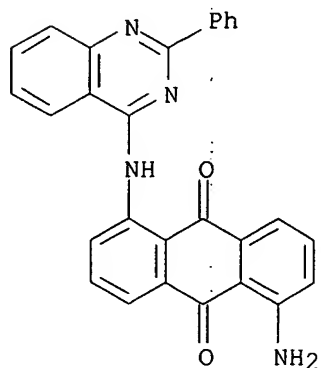


RN 121600-19-9 CAOLD  
 CN Anthraquinone, 1-amino-4-[(2-phenyl-4-quinazolinyl)amino]-, hydrochloride (6CI) (CA INDEX NAME)



● HCl

RN 121991-09-1 CAOLD  
 CN Anthraquinone, 1-amino-5-[(2-phenyl-4-quinazolinyl)amino]-, hydrochloride  
 (6CI) (CA INDEX NAME)



● HCl

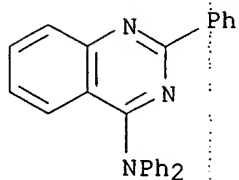
L32 ANSWER 12 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
 AN CA55:21152e CAOLD  
 TI piperazinium salts  
 AU Rudner, Bernard  
 PA Grace, W. R., & Co.  
 DT Patent

PATENT NO.	KIND	DATE
US 2967865		1961

IT 103051-13-4 125904-49-6

RN 103051-13-4 CAOLD

CN 4-Quinazolinamine, N,N,2-triphenyl- (9CI) (CA INDEX NAME)

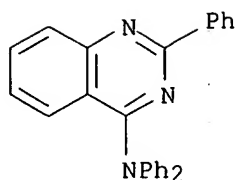


RN 125904-49-6 CAOLD  
 CN Quinazoline, 4-diphenylamino-2-phenyl-, chlorostannate(IV) (6CI) (CA INDEX NAME)

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CRN 103051-13-4

CMF C26 H19 N3

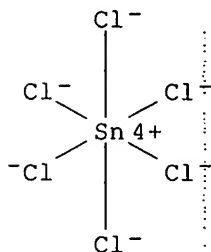


CM 2

CRN 19512-65-3

CMF Cl6 Sn . 2 H

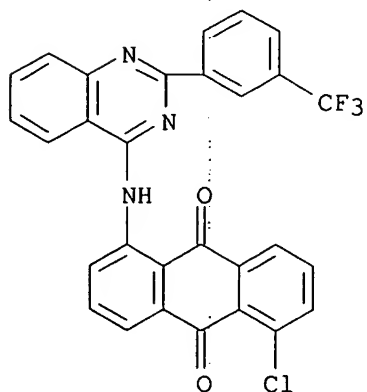
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● 2 H<sup>+</sup>

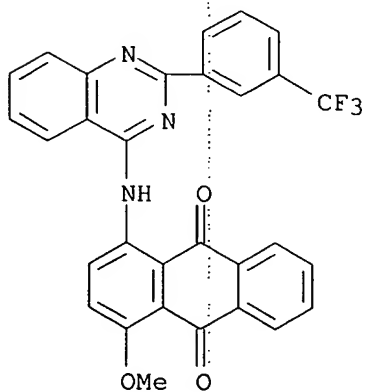
L32 ANSWER 13 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
 AN CA55:1009h CAOLD  
 TI dyes (vat) for dyeing fibers, fabrics, and other structures consisting of  
 high-mol.-weight substances containing carboxamide groups  
 PA Badische Anilin- & Soda-Fabrik Akt.-Ges.  
 DT Patent  
 TI vat dyes for dyeing fibers, fabrics, and other structures consisting of  
 high-mol.-weight substances containing carboxamide groups  
 AU Ebel, Friedrich; Schuhmacher, A.; Kling, K. E.  
 DT Patent  

PATENT NO.	KIND	DATE
DE 1046565		
2356-27-6	2560-95-4	3825-15-8
3872-28-4	3888-59-3	7604-25-3
7604-26-4	103037-11-2	103165-54-4
103985-83-7	103985-84-8	104178-10-1
104178-11-2	104179-61-5	104179-62-6
104297-81-6	104297-82-7	104297-83-8
104395-80-4	104508-87-4	104508-88-5
104508-89-6	104509-84-4	105946-28-9
105947-33-9	115605-21-5	115605-22-6
115606-03-6	116027-87-3	116028-56-9
117072-08-9	117072-14-7	117874-82-5
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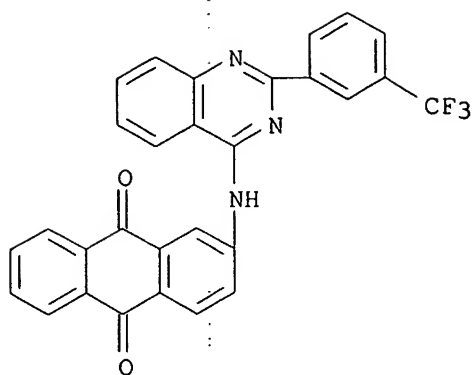
RN 2356-27-6 CAOLD  
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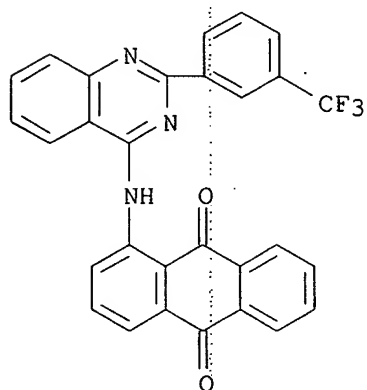
RN 2560-95-4 CAOLD  
 CN Anthraquinone, 1-methoxy-4-[[2-( $\alpha,\alpha,\alpha$ -trifluoro-m-tolyl)-4-quinazolinyl]amino]- (6CI, 8CI) (CA INDEX NAME)



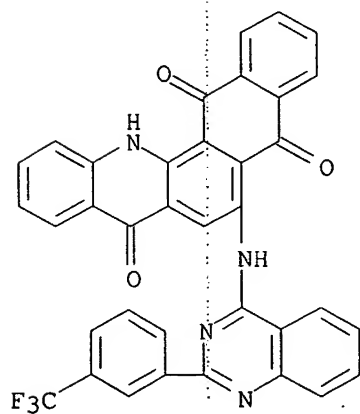
RN 3825-15-8 CAOLD  
 CN Anthraquinone, 2-[[2-( $\alpha,\alpha,\alpha$ -trifluoro-m-tolyl)-4-quinazolinyl]amino]- (6CI, 8CI) (CA INDEX NAME)



RN 3872-28-4 CAOLD  
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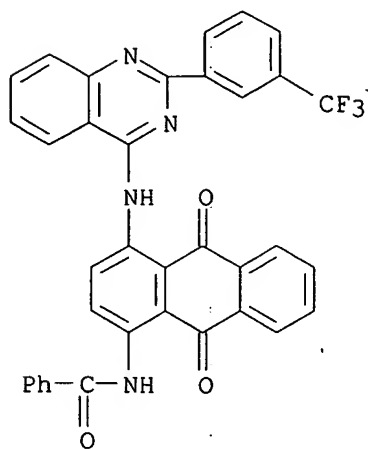


RN 3888-59-3 CAOLD  
CN Naphth[2,3-c]acridan-5,8,14-trione, 6-[[2-( $\alpha,\alpha,\alpha$ -trifluoro-m-tolyl)-4-quinazolinyl]amino]- (6CI, 8CI) (CA INDEX NAME)



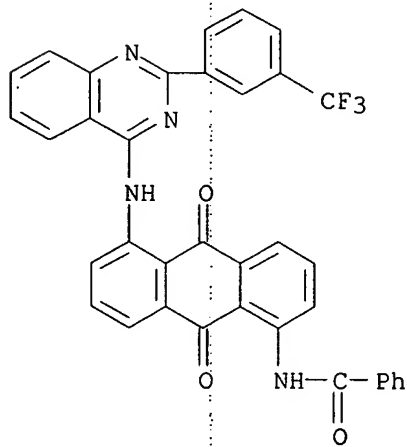
RN 7604-25-3 CAOLD

CN Anthraquinone, 1-benzamido-4-[[2-( $\alpha,\alpha,\alpha$ -trifluoro-m-tolyl)-4-quinazolinyl]amino]- (6CI, 8CI) (CA INDEX NAME)



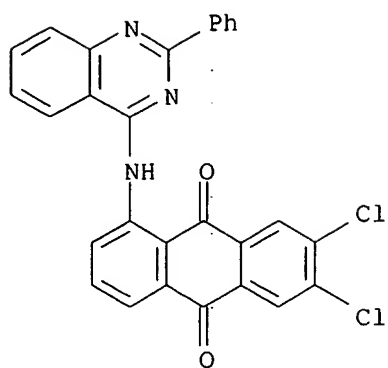
RN 7604-26-4 CAOLD

CN Benzamide, N-[9,10-dihydro-9,10-dioxo-5-[[2-[3-(trifluoromethyl)phenyl]-4-quinazolinyl]amino]-1-anthracenyl]- (9CI) (CA INDEX NAME)

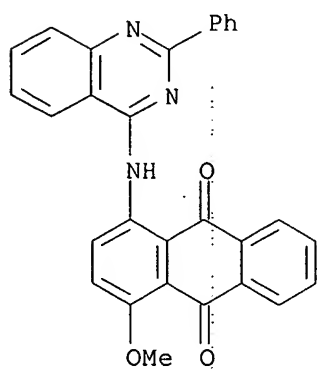


RN 103037-11-2 CAOLD

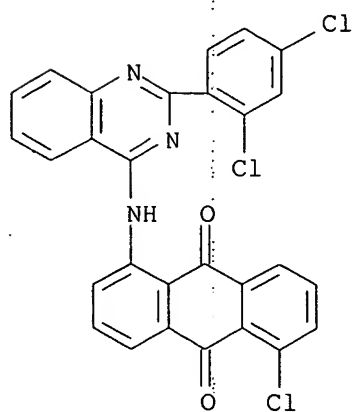
CN Anthraquinone, 6,7-dichloro-1-[(2-phenyl-4-quinazolinyl)amino]- (6CI) (CA INDEX NAME)



RN 103165-54-4 CAOLD  
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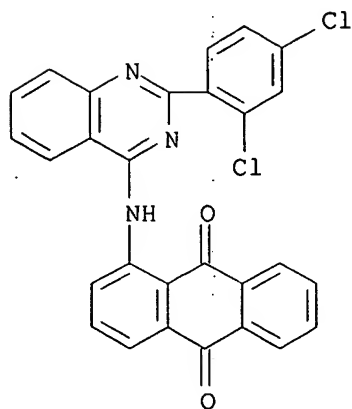
RN 103985-83-7 CAOLD  
CN Anthraquinone, 1-chloro-5-[[2-(2,4-dichlorophenyl)-4-quinazolinyl]amino]- (6CI) (CA INDEX NAME)



RN 103985-84-8 CAOLD  
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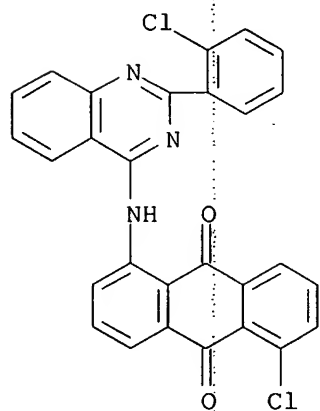


(CA INDEX NAME)



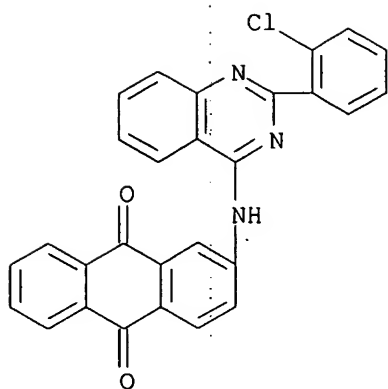
RN 104178-10-1 CAOLD

CN Anthraquinone, 1-chloro-5-[[2-(o-chlorophenyl)-4-quinazolinyl]amino]-  
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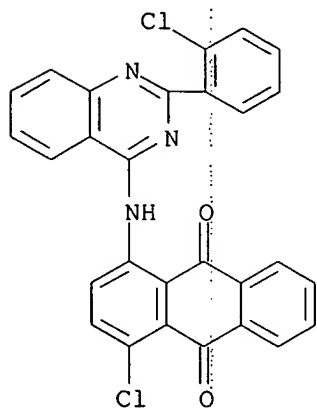
RN 104178-11-2 CAOLD

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INDEX NAME)



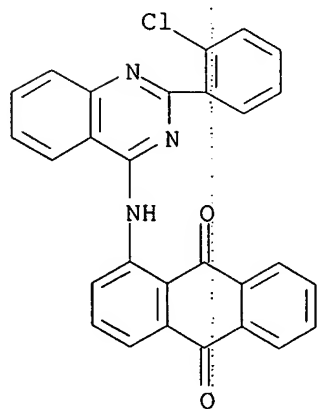
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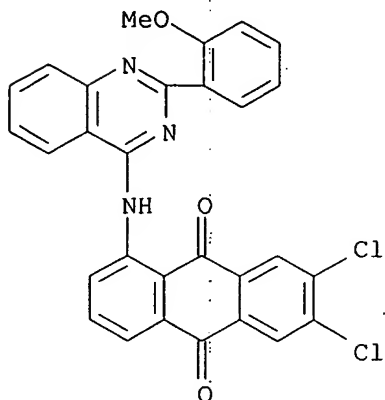


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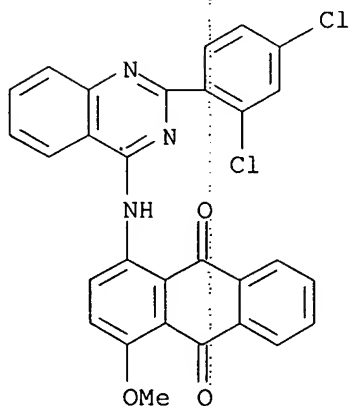
CN Anthraquinone, 1-[[2-(o-chlorophenyl)-4-quinazolinyl]amino]- (6CI) (CA  
INDEX NAME)



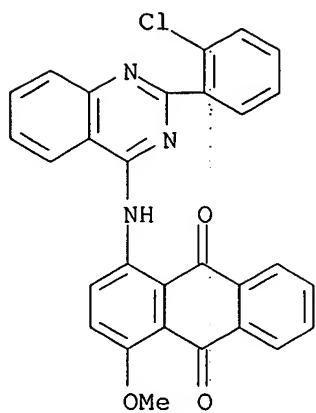
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 (6CI) (CA INDEX NAME)



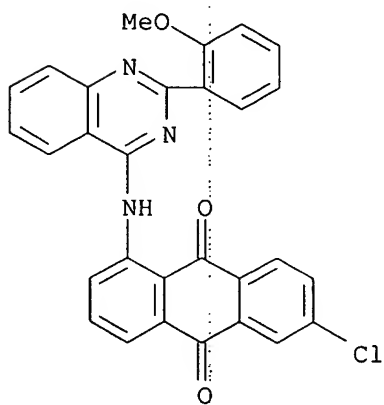
RN 104297-82-7 CAOLD  
 CN Anthraquinone, 1-[[2-(2,4-dichlorophenyl)-4-quinazolinyl]amino]-4-methoxy-  
 (6CI) (CA INDEX NAME)



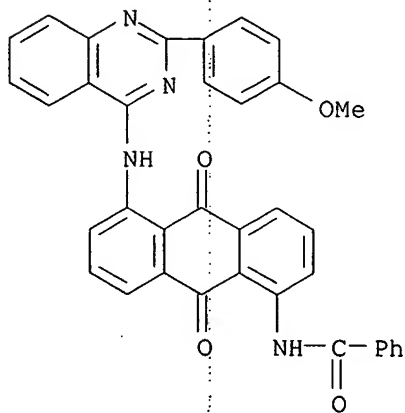
RN 104297-83-8 CAOLD  
 CN Anthraquinone, 1-[[2-(o-chlorophenyl)-4-quinazolinyl]amino]-4-methoxy-  
 (6CI) (CA INDEX NAME)



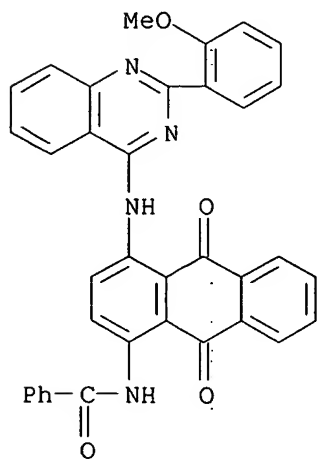
RN 104395-80-4 CAOLD  
 CN Anthraquinone, 6-chloro-1-[[2-(o-methoxyphenyl)-4-quinazolinyl]amino]-  
 (6CI) (CA INDEX NAME)



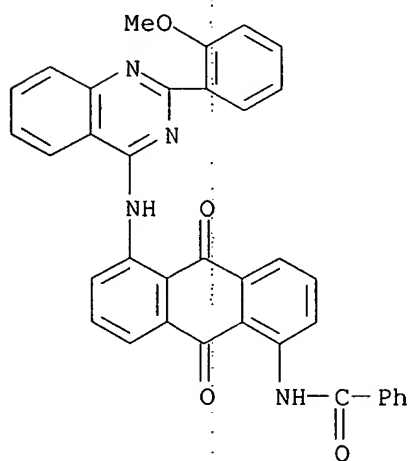
RN 104508-87-4 CAOLD  
 CN Anthraquinone, 1-benzamido-5-[[2-(p-methoxyphenyl)-4-quinazolinyl]amino]-  
 (6CI) (CA INDEX NAME)



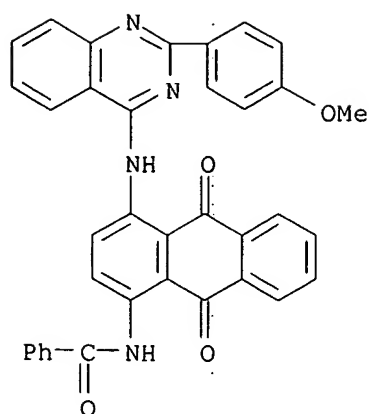
RN 104508-88-5 CAOLD  
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 (6CI) (CA INDEX NAME)



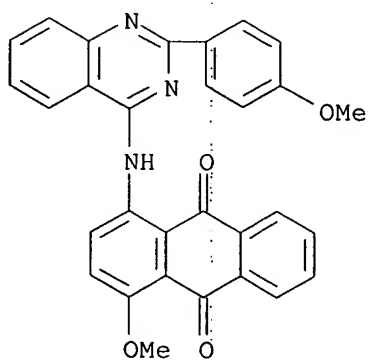
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 (6CI) (CA INDEX NAME)



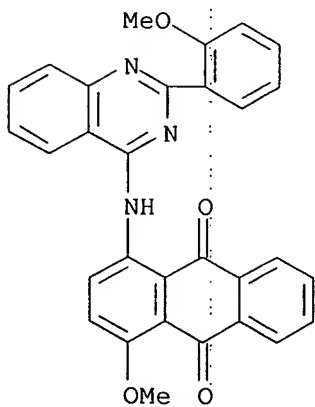
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 (6CI) (CA INDEX NAME)



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(6CI) (CA INDEX NAME)

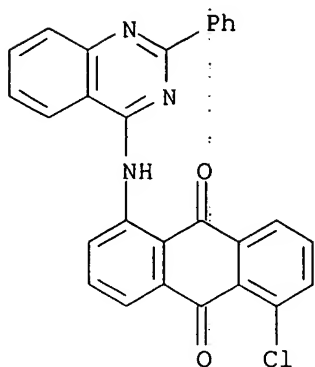


RN 105947-33-9 CAOLD  
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(6CI) (CA INDEX NAME)

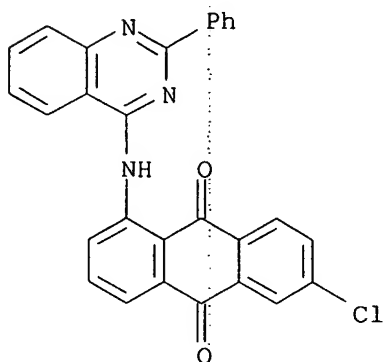


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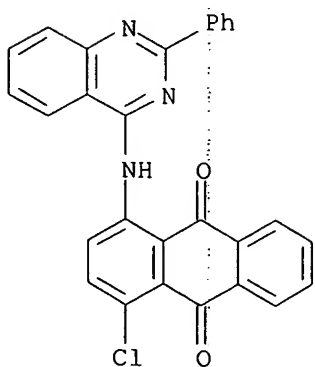
CN Anthraquinone, 1-chloro-5-[(2-phenyl-4-quinazolinyl)amino]- (6CI) (CA  
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INDEX NAME)

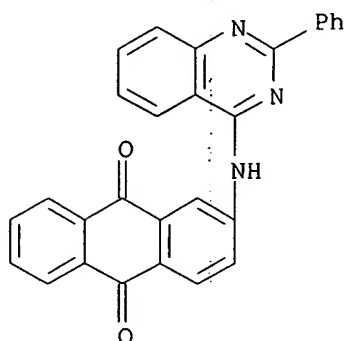


RN 115606-03-6 CAOLD  
CN Anthraquinone, 1-chloro-4-[(2-phenyl-4-quinazolinyl)amino]- (6CI) (CA  
INDEX NAME)



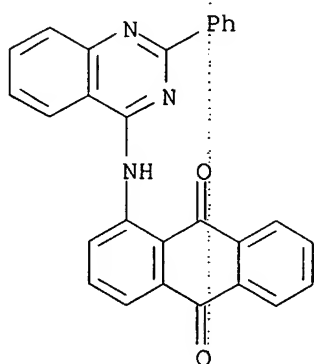
RN 116027-87-3 CAOLD

CN Anthraquinone, 2-[(2-phenyl-4-quinazolinyl)amino]- (6CI) (CA INDEX NAME)



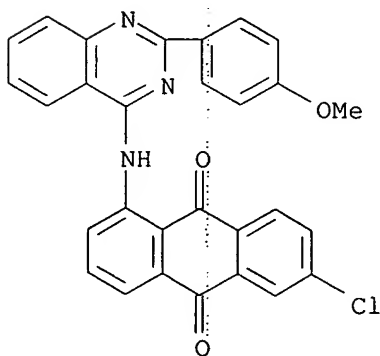
RN 116028-56-9 CAOLD

CN Anthraquinone, 1-[(2-phenyl-4-quinazolinyl)amino]- (6CI) (CA INDEX NAME)



RN 117072-08-9 CAOLD

CN Anthraquinone, 6-chloro-1-[[2-(p-methoxyphenyl)-4-quinazolinyl]amino]- (6CI) (CA INDEX NAME)

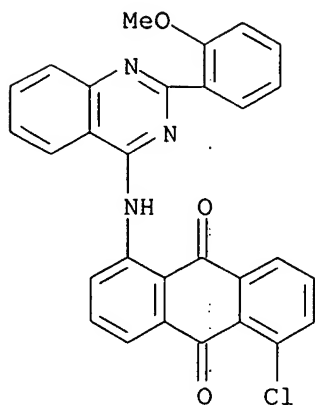


RN 117072-14-7 CAOLD

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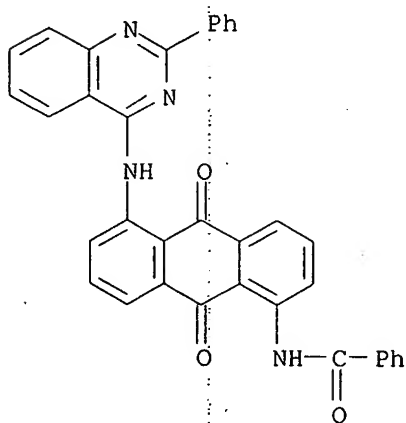


(6CI) (CA INDEX NAME)



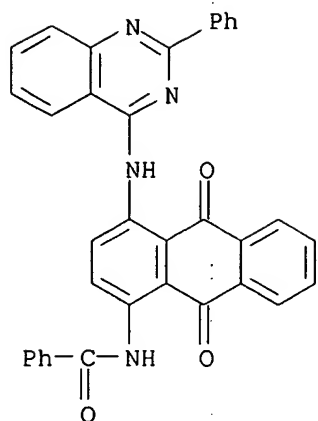
RN 117874-82-5 CAOLD

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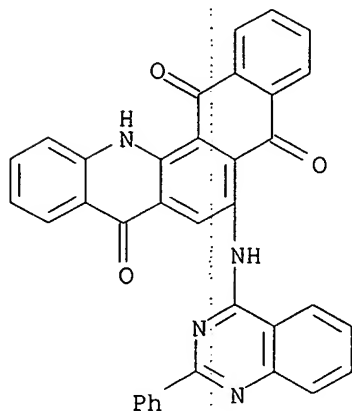


RN 117875-03-3 CAOLD

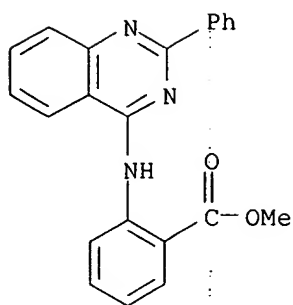
CN Anthraquinone, 1-benzamido-4-[(2-phenyl-4-quinazolinyl)amino]- (6CI) (CA INDEX NAME)



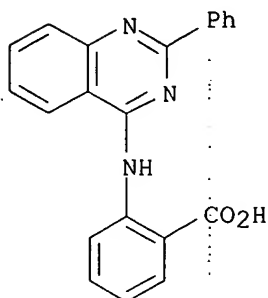
RN 122218-73-9 CAOLD  
 CN Naphth[2,3-c]acridan-5,8,14-trione, 6-[(2-phenyl-4-quinazolinyl)amino]-  
 (6CI) (CA INDEX NAME)



L32 ANSWER 14 OF 14 CAOLD COPYRIGHT 2006 ACS on STN  
 AN CA51:6647h CAOLD  
 TI synthesis in the quinazolone series - (II) quino- and quinazoquinazolones,  
 (III) formation of quinazo[4,3-b]-quinazol-8-one and 2-o-  
 aminophenylquinazol-4-one by the hydrolysis of 3,4'-quinazolinyl-quinazol-  
 4-one  
 AU Stephen, T.; Stephen, H.  
 IT 102452-36-8 102467-08-3  
 RN 102452-36-8 CAOLD  
 CN Anthranilic acid, N-(2-phenyl-4-quinazolinyl)-, methyl ester (6CI) (CA  
 INDEX NAME)



RN 102467-08-3 CAOLD  
 CN Anthranilic acid, N-(2-phenyl-4-quinazolinyl)- (6CI) (CA INDEX NAME)



=> file marpat

FILE 'MARPAT' ENTERED AT 09:51:42 ON 15 AUG 2006  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE CONTENT: 1961-PRESENT VOL 145 ISS 7 (20060811/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES  
 (COVERAGE TO THESE DATES IS NOT COMPLETE):

US	2006135764	22 JUN 2006
DE	102004057645	01 JUN 2006
EP	1674464	28 JUN 2006
JP	2006143645	08 JUN 2006
WO	2006070546	06 JUL 2006
GB	2421183	21 JUN 2006
FR	2879449	23 JUN 2006
RU	2277091	27 MAY 2006
CA	2488034	19 MAY 2006

Expanded G-group definition display now available.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

=> d his nofile

(FILE 'HOME' ENTERED AT 08:36:17 ON 15 AUG 2006)

FILE 'REGISTRY' ENTERED AT 08:36:23 ON 15 AUG 2006

L1 STRUCTURE UPLOADED  
L2 0 SEA SSS SAM L1

FILE 'REGISTRY' ENTERED AT 09:26:40 ON 15 AUG 2006

L3 STRUCTURE UPLOADED  
D QUE L3  
L4 14 SEA SSS SAM L3  
D QUE L3  
L5 2753 SEA SSS FUL L3  
SAVE L5 LEESER428/A TEMP

FILE 'CAPLUS' ENTERED AT 09:28:35 ON 15 AUG 2006

L6 181 SEA ABB=ON PLU=ON L5

FILE 'REGISTRY' ENTERED AT 09:28:45 ON 15 AUG 2006

FILE 'CAPLUS' ENTERED AT 09:28:48 ON 15 AUG 2006

E US2004-811428/APPS  
L7 1 SEA ABB=ON PLU=ON US2004-811428/AP  
SEL RN L7

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L8 194 SEA ABB=ON PLU=ON (100-65-2/BI OR 1003-29-8/BI OR 10472-24-9/  
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I OR 108554-34-3/BI OR 109-77-3/BI OR 109-81-9/BI OR 111-33-1/B  
I OR 122-01-0/BI OR 123-00-2/BI OR 123-75-1/BI OR 14080-51-4/BI  
OR 14246-77-6/BI OR 1479-24-9/BI OR 159326-66-6/BI OR  
159326-69-9/BI OR 16135-36-7/BI OR 1663-61-2/BI OR 1670-14-0/BI  
OR 16952-66-2/BI OR 1711-09-7/BI OR 1711-10-0/BI OR 17219-22-6  
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773139-17

L9 79 SEA ABB=ON PLU=ON L8 AND L5

FILE 'STNGUIDE' ENTERED AT 09:29:38 ON 15 AUG 2006

FILE 'REGISTRY' ENTERED AT 09:29:53 ON 15 AUG 2006

L10 STRUCTURE UPLOADED

D QUE L10

L11 4 SEA SUB=L5 SSS SAM L10

L12 55 SEA SUB=L5 SSS FUL L10

FILE 'CAPLUS' ENTERED AT 09:31:23 ON 15 AUG 2006

L13 11 SEA ABB=ON PLU=ON L12

L14 0 SEA ABB=ON PLU=ON L13 NOT (PY>2003 OR AY>2003 OR PRY>2003)

L15 103 SEA ABB=ON PLU=ON L6 NOT (PY>2003 OR AY>2003 OR PRY>2003)

FILE 'BEILSTEIN' ENTERED AT 09:32:13 ON 15 AUG 2006

L16 0 SEA SSS FUL L10

FILE 'MARPAT' ENTERED AT 09:33:01 ON 15 AUG 2006

L17 2 SEA SSS SAM L10

L18 15 SEA SSS FUL L10

L19 9 SEA ABB=ON PLU=ON L18 NOT L13

FILE 'HCAPLUS' ENTERED AT 09:33:41 ON 15 AUG 2006

E DUGAR S/AU

L20 104 SEA ABB=ON PLU=ON ("DUGAR S"/AU OR "DUGAR S K"/AU OR "DUGAR S M"/AU OR "DUGAR S V"/AU OR "DUGAR SUNDEEP"/AU)

E CHAKRAVARTY S/AU

L21 193 SEA ABB=ON PLU=ON ("CHAKRAVARTY S"/AU OR "CHAKRAVARTY S C"/AU OR "CHAKRAVARTY S D"/AU OR "CHAKRAVARTY S K"/AU OR "CHAKRAVARTY S L"/AU OR "CHAKRAVARTY S N"/AU OR "CHAKRAVARTY S R"/AU OR "CHAKRAVARTY SARJAVIT"/AU OR "CHAKRAVARTY SARVAJIT"/AU )

E CONTE A/AU

L22 128 SEA ABB=ON PLU=ON ("CONTE A"/AU OR "CONTE A A"/AU OR "CONTE A A JR"/AU OR "CONTE A C JR"/AU OR "CONTE A J"/AU OR "CONTE A M"/AU OR "CONTE A T HERNANDEZ"/AU OR "CONTE AURELIA"/AU)

E AXON J/AU

L23 10 SEA ABB=ON PLU=ON ("AXON J"/AU OR "AXON J B"/AU OR "AXON J M C"/AU OR "AXON JONATHAN"/AU OR "AXON JONATHAN R"/AU)

E MCENROE G/AU

L24 27 SEA ABB=ON PLU=ON ("MCENROE G"/AU OR "MCENROE GLEN"/AU OR "MCENROE GLENN"/AU OR "MCENROE GLENN A"/AU)

E MURPHY A/AU

L25 285 SEA ABB=ON PLU=ON ("MURPHY A"/AU OR "MURPHY A A"/AU OR "MURPHY A B"/AU OR "MURPHY A C"/AU OR "MURPHY A D"/AU OR "MURPHY A DON"/AU OR "MURPHY A DOUGLAS"/AU OR "MURPHY A E"/AU OR "MURPHY A F"/AU OR "MURPHY A G"/AU OR "MURPHY A G V"/AU OR "MURPHY A H"/AU OR "MURPHY A J"/AU OR "MURPHY A JR"/AU OR "MURPHY A K"/AU OR "MURPHY A L"/AU OR "MURPHY A M"/AU OR "MURPHY A N"/AU OR "MURPHY A P"/AU OR "MURPHY A R"/AU OR "MURPHY A R VASUDEVA"/AU OR "MURPHY A REG"/AU OR "MURPHY A S"/AU OR "MURPHY A S P"/AU OR "MURPHY A SCOTT"/AU OR "MURPHY A ST J"/AU OR "MURPHY A STJ"/AU OR "MURPHY A T"/AU OR "MURPHY A W"/AU OR "MURPHY A Z"/AU OR "MURPHY AL"/AU OR "MURPHY ALISON"/AU U OR "MURPHY ALISON A"/AU)

L26 32 SEA ABB=ON PLU=ON (L20 AND (L21 OR L22 OR L23 OR L24 OR L25)) OR (L21 AND (L22 OR L23 OR L24 OR L25)) OR (L22 AND (L23 OR L24 OR L25)) OR (L23 AND (L24 OR L25)) OR (L24 AND L25)

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 09:37:05 ON 15 AUG 2006

L27 0 SEA ABB=ON PLU=ON L12  
L28 0 SEA ABB=ON PLU=ON L5

FILE 'CAOLD' ENTERED AT 09:37:58 ON 15 AUG 2006

L29 0 SEA ABB=ON PLU=ON L12  
L30 14 SEA ABB=ON PLU=ON L5  
L31 14 SEA ABB=ON PLU=ON (L30 OR L6)  
L32 14 SEA ABB=ON PLU=ON L31 NOT (PY>2003 OR AY>2003 OR PRY>2003)  
D BIB  
D BIB 5

FILE 'HCAPLUS' ENTERED AT 09:39:42 ON 15 AUG 2006

L33 11 SEA ABB=ON PLU=ON (L7 OR L13)

FILE 'REGISTRY' ENTERED AT 09:40:07 ON 15 AUG 2006

FILE 'STNGUIDE' ENTERED AT 09:40:23 ON 15 AUG 2006

FILE 'REGISTRY' ENTERED AT 09:43:09 ON 15 AUG 2006

L34 STRUCTURE UPLOADED  
D QUE L34

L35 50 SEA SUB=L5 SSS SAM L34

FILE 'BIOSIS' ENTERED AT 09:45:25 ON 15 AUG 2006

L36 0 SEA ABB=ON PLU=ON L12

FILE 'EMBASE' ENTERED AT 09:45:32 ON 15 AUG 2006

L37 0 SEA ABB=ON PLU=ON L12

FILE 'CAPLUS' ENTERED AT 09:46:06 ON 15 AUG 2006

SAVE L6 LEESERCA/A TEMP

FILE 'REGISTRY' ENTERED AT 09:47:07 ON 15 AUG 2006

SAVE L12 LEESERSUB/A TEMP

FILE 'REGISTRY' ENTERED AT 09:47:48 ON 15 AUG 2006

FILE 'HCAPLUS' ENTERED AT 09:47:55 ON 15 AUG 2006

D QUE L26  
D IBIB ABS L26 TOT  
D QUE L33  
D IBIB ABS HITSTR L33 TOT

FILE 'CAOLD' ENTERED AT 09:48:37 ON 15 AUG 2006

D QUE L32  
D QUE L32  
D BIB HITSTR L32 TOT

FILE 'MARPAT' ENTERED AT 09:51:42 ON 15 AUG 2006

D QUE L19  
D IBIB ABS QHIT L19 TOT

FILE 'STNGUIDE' ENTERED AT 10:42:42 ON 15 AUG 2006

FILE 'REGISTRY' ENTERED AT 10:43:48 ON 15 AUG 2006

L38 STRUCTURE UPLOADED  
D QUE L38

L39 50 SEA SUB=L5 SSS SAM L38  
L40 2005 SEA SUB=L5 SSS FUL L38

L41            748 SEA ABB=ON   PLU=ON   L5 NOT L40

FILE 'CAPLUS' ENTERED AT 10:44:47 ON 15 AUG 2006

L42            84 SEA ABB=ON   PLU=ON   L41

L43            37 SEA ABB=ON   PLU=ON   L42 NOT (PY>2003 OR AY>2003 OR PRY>2003)

FILE 'REGISTRY' ENTERED AT 10:45:27 ON 15 AUG 2006

              D QUE L38

FILE 'STNGUIDE' ENTERED AT 10:49:01 ON 15 AUG 2006

FILE 'CAPLUS' ENTERED AT 10:49:49 ON 15 AUG 2006

FILE 'REGISTRY' ENTERED AT 10:49:54 ON 15 AUG 2006

L44            STRUCTURE UPLOADED

              D QUE L44

L45            50 SEA SUB=L5   SSS SAM L44

L46            2116 SEA SUB=L5   SSS FUL L44

L47            637 SEA ABB=ON   PLU=ON   L5 NOT L46

FILE 'CAPLUS' ENTERED AT 10:50:58 ON 15 AUG 2006

L48            74 SEA ABB=ON   PLU=ON   L47

L49            35 SEA ABB=ON   PLU=ON   L48 NOT (PY>2003 OR AY>2003 OR PRY>2003)

FILE 'REGISTRY' ENTERED AT 10:51:11 ON 15 AUG 2006

FILE 'CAPLUS' ENTERED AT 10:51:34 ON 15 AUG 2006

L50            37 SEA ABB=ON   PLU=ON   (L43 OR L49)

FILE 'REGISTRY' ENTERED AT 10:51:53 ON 15 AUG 2006

L51            111 SEA ABB=ON   PLU=ON   L41 NOT L47

FILE 'REGISTRY' ENTERED AT 11:03:41 ON 15 AUG 2006

              E PONASTERONE/CN

L\*\*\* DEL       1 S E4

              D SCAN

FILE 'REGISTRY' ENTERED AT 11:10:15 ON 15 AUG 2006

              E GS 2/CN

L\*\*\* DEL       3 S E3

              D SCAN

FILE 'REGISTRY' ENTERED AT 11:11:56 ON 15 AUG 2006

              E GS E/CN

              E GS /CN

              E GS-E/CN

L\*\*\* DEL       2 S E3

              D SCAN

FILE 'HCAPLUS' ENTERED AT 11:17:31 ON 15 AUG 2006

              E TGF/CT

              E E3+ALL

              E TGF/CT

              E E9+ALL

L52            0 SEA ABB=ON   PLU=ON   TGF-B+PFT/CT

L53            2 SEA ABB=ON   PLU=ON   L48 AND (TGF?)/OBI,BI

L54            37 SEA ABB=ON   PLU=ON   (L49 OR L53)

L55            39 SEA ABB=ON   PLU=ON   (L50 OR L54)

L56            1717220 SEA ABB=ON   PLU=ON   (CARDIOVASCULAR? OR SURGICAL? OR MECHANICAL

? OR KIDNEY? OR FIBROSIS? OR CHRONIC UTERAL OBSTRUC? OR  
HEPATIC? OR PROGRESSIVE SCLEROSIS? OR PULMONARY FIBROSIS? OR  
COLLAGEN VASCULAR DISORDER? OR VASCULAR? OR EYE DISEASE? OR  
CANCER? OR CONGESTIVE HEART FAILURE? OR CARDIOMYOPATHY?)/OBI,BI

L57 312716 SEA ABB=ON PLU=ON (MYOCARDITIS? OR VASCULAR STENOS? OR  
ATHEROSCLE? OR ANGIOPLASTY? OR NEPHROPATHY? OR HYPERTEN? OR  
DIABET? OR GLOMERULONEPHRIT? OR CIRRHOSIS? OR BILIAR? OR  
RESPIRATORY DISTRESS SYNDROME? OR PULMONARY SYNDROME? OR  
POLYMYOS?)/OBI,BI  
L58 174335 SEA ABB=ON PLU=ON (SCLERODERMA? OR PROGRESSIVE SYSTEMIC  
SCLEROS? OR DERMATOMYOSI? OR FASCIST? OR RAYNAUD? OR ARTHRIT?  
OR RHEUMATOID ARTH? OR VITREORETINOPATH? OR RETINAL ATTACH? OR  
CROHN? OR ULCERATIBE? OR EMDOME? OR OVARIAN? OR PARKINSON? OR  
ALZHEIMER?)/OBI,BI  
L59 29 SEA ABB=ON PLU=ON L48 AND (L56 OR L57 OR L58)  
L60 62 SEA ABB=ON PLU=ON (L54 OR L59)  
L61 49 SEA ABB=ON PLU=ON L47 (L) (THU OR BAC OR PKT OR DMA OR  
PAC)/RL  
L62 29 SEA ABB=ON PLU=ON L61 AND (L56 OR L57 OR L58)  
L63 11 SEA ABB=ON PLU=ON L61 NOT (PY>2003 OR AY>2003 OR PRY>2003)  
L64 29 SEA ABB=ON PLU=ON (L59 OR L62)  
L65 2 SEA ABB=ON PLU=ON L64 NOT (PY>2003 OR AY>2003 OR PRY>2003)  
L66 35 SEA ABB=ON PLU=ON (L63 OR L65 OR L49)  
L67 37 SEA ABB=ON PLU=ON (L66 OR L53)  
L68 36 SEA ABB=ON PLU=ON L67 NOT L33  
L69 36 SEA ABB=ON PLU=ON L68 NOT L26

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 11:32:35 ON 15 AUG 2006

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FILE COVERS 1907 - 15 Aug 2006 VOL 145 ISS 8

FILE LAST UPDATED: 14 Aug 2006 (20060814/ED)

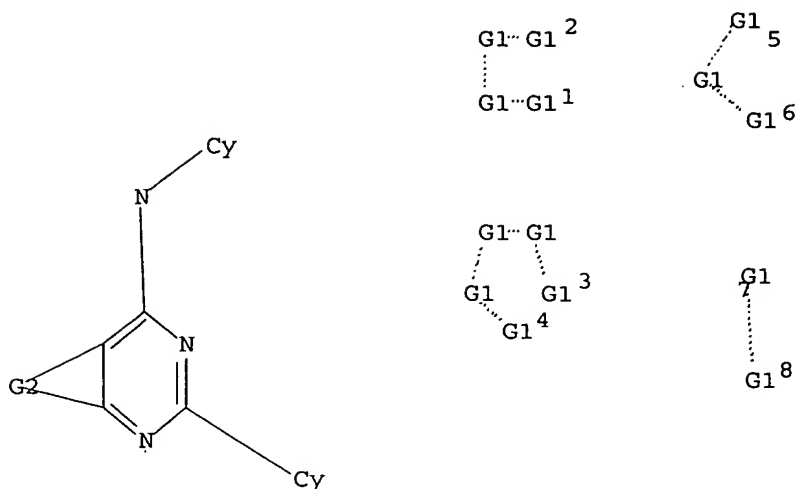
New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que 169

L3 STR





G1 C,O,S,N

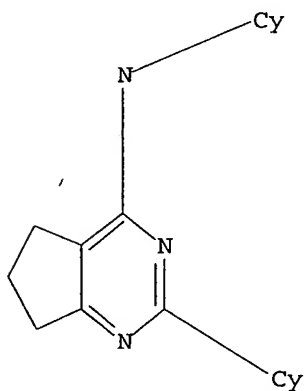
G2 [@1-@2], [@3-@4], [@5-@6], [@7-@8]

Structure attributes must be viewed using STN Express query preparation.

L5 2753 SEA FILE=REGISTRY SSS FUL L3

L7 1 SEA FILE=CAPLUS ABB=ON PLU=ON US2004-811428/AP

L10 STR



Structure attributes must be viewed using STN Express query preparation.

L12 55 SEA FILE=REGISTRY SUB=L5 SSS FUL L10

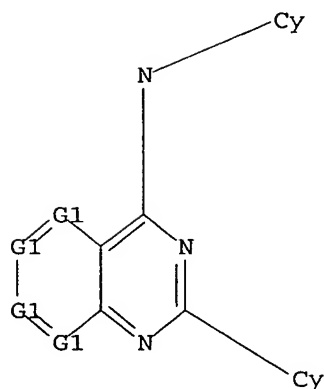
L13 11 SEA FILE=CAPLUS ABB=ON PLU=ON L12

L20 104 SEA FILE=HCAPLUS ABB=ON PLU=ON ("DUGAR S"/AU OR "DUGAR S K"/AU OR "DUGAR S M"/AU OR "DUGAR S V"/AU OR "DUGAR SUNDEEP"/AU )

L21 193 SEA FILE=HCAPLUS ABB=ON PLU=ON ("CHAKRAVARTY S"/AU OR "CHAKRAVARTY S C"/AU OR "CHAKRAVARTY S D"/AU OR "CHAKRAVARTY S K"/AU OR "CHAKRAVARTY S L"/AU OR "CHAKRAVARTY S N"/AU OR "CHAKRAVARTY S R"/AU OR "CHAKRAVARTY SARJAVIT"/AU OR "CHAKRAVARTY SARVAJIT"/AU)

L22 128 SEA FILE=HCAPLUS ABB=ON PLU=ON ("CONTE A"/AU OR "CONTE A A"/AU OR "CONTE A A JR"/AU OR "CONTE A C JR"/AU OR "CONTE A J"/AU OR "CONTE A M"/AU OR "CONTE A T HERNANDEZ"/AU OR "CONTE

AURELIA"/AU)  
L23 10 SEA FILE=HCAPLUS ABB=ON PLU=ON ("AXON J"/AU OR "AXON J B"/AU OR "AXON J M C"/AU OR "AXON JONATHAN"/AU OR "AXON JONATHAN R"/AU)  
L24 27 SEA FILE=HCAPLUS ABB=ON PLU=ON ("MCENROE G"/AU OR "MCENROE GLEN"/AU OR "MCENROE GLENN"/AU OR "MCENROE GLENN A"/AU)  
L25 285 SEA FILE=HCAPLUS ABB=ON PLU=ON ("MURPHY A"/AU OR "MURPHY A A"/AU OR "MURPHY A B"/AU OR "MURPHY A C"/AU OR "MURPHY A D"/AU OR "MURPHY A DON"/AU OR "MURPHY A DOUGLAS"/AU OR "MURPHY A E"/AU OR "MURPHY A F"/AU OR "MURPHY A G"/AU OR "MURPHY A G V"/AU OR "MURPHY A H"/AU OR "MURPHY A J"/AU OR "MURPHY A JR"/AU OR "MURPHY A K"/AU OR "MURPHY A L"/AU OR "MURPHY A M"/AU OR "MURPHY A N"/AU OR "MURPHY A P"/AU OR "MURPHY A R"/AU OR "MURPHY A R VASUDEVA"/AU OR "MURPHY A REG"/AU OR "MURPHY A S"/AU OR "MURPHY A S P"/AU OR "MURPHY A SCOTT"/AU OR "MURPHY A ST J"/AU OR "MURPHY A STJ"/AU OR "MURPHY A T"/AU OR "MURPHY A W"/AU OR "MURPHY A Z"/AU OR "MURPHY AL"/AU OR "MURPHY ALISON"/AU OR "MURPHY ALISON A"/AU)  
L26 32 SEA FILE=HCAPLUS ABB=ON PLU=ON (L20 AND (L21 OR L22 OR L23 OR L24 OR L25)) OR (L21 AND (L22 OR L23 OR L24 OR L25)) OR (L22 AND (L23 OR L24 OR L25)) OR (L23 AND (L24 OR L25)) OR (L24 AND L25)  
L33 11 SEA FILE=HCAPLUS ABB=ON PLU=ON (L7 OR L13)  
L44 STR



G1 C,O,S,N.

Structure attributes must be viewed using STN Express query preparation.

L46 2116 SEA FILE=REGISTRY SUB=L5 SSS FUL L44  
L47 637 SEA FILE=REGISTRY ABB=ON PLU=ON L5 NOT L46  
L48 74 SEA FILE=CAPLUS ABB=ON PLU=ON L47  
L49 35 SEA FILE=CAPLUS ABB=ON PLU=ON L48 NOT (PY>2003 OR AY>2003 OR PRY>2003)  
L53 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 AND (TGF?)/OBI,BI  
L56 1717220 SEA FILE=HCAPLUS ABB=ON PLU=ON (CARDIOVASCULAR? OR SURGICAL? OR MECHANICAL? OR KIDNEY? OR FIBROSIS? OR CHRONIC UTERAL OBSTRUC? OR HEPATIC? OR PROGRESSIVE SCLEROSIS? OR PULMONARY FIBROSIS? OR COLLAGEN VASCULAR DISORDER? OR VASCULAR? OR EYE DISEASE? OR CANCER? OR CONGESTIVE HEART FAILURE? OR CARDIOMYOPATHY?)/OBI,BI  
L57 312716 SEA FILE=HCAPLUS ABB=ON PLU=ON (MYOCARDITIS? OR VASCULAR STENOS? OR ATHEROSCLE? OR ANGIOPLASTY? OR NEPHROPATHY? OR HYPERTEN? OR DIABET? OR GLOMERULONEPHRIT? OR CIRRHOSIS? OR

BILIAR? OR RESPIRATORY DISTRESS SYNDROME? OR PULMONARY SYNDROME? OR POLYMYOS?)/OBI,BI

L58 174335 SEA FILE=HCAPLUS ABB=ON PLU=ON (SCLERODERMA? OR PROGRESSIVE SYSTEMIC SCLEROS? OR DERMATOMYOSI? OR FASCIST? OR RAYNAUD? OR ARTHRIT? OR RHEUMATOID ARTH? OR VITREORETINOPATH? OR RETINAL ATTACH? OR CROHN? OR ULCERATIBE? OR EMDOME? OR OVARIAN? OR PARKINSON? OR ALZHEIMER?)/OBI,BI

L59 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 AND (L56 OR L57 OR L58)

L61 49 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 (L), (THU OR BAC OR PKT OR DMA OR PAC)/RL

L62 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L61 AND (L56 OR L57 OR L58)

L63 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L61 NOT (PY>2003 OR AY>2003 OR PRY>2003)

L64 29 SEA FILE=HCAPLUS ABB=ON PLU=ON (L59 OR L62)

L65 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L64 NOT (PY>2003 OR AY>2003 OR PRY>2003)

L66 35 SEA FILE=HCAPLUS ABB=ON PLU=ON (L63 OR L65 OR L49)

L67 37 SEA FILE=HCAPLUS ABB=ON PLU=ON (L66 OR L53)

L68 36 SEA FILE=HCAPLUS ABB=ON PLU=ON L67 NOT L33

L69 36 SEA FILE=HCAPLUS ABB=ON PLU=ON L68 NOT L26

=> d ibib abs hitstr l69 tot

L69 ANSWER 1 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:633933 HCAPLUS

DOCUMENT NUMBER: 141:174181

TITLE: Preparation of quinolines, quinazolines and thienopyrimidines as ALK-5 receptor ligands for the treatment of kidney fibrosis

INVENTOR(S): Dodic, Nerina; Gellibert, Francoise Jeanne; Hunter, Robert Neil, III

PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA

SOURCE: PCT Int. Appl., 50 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

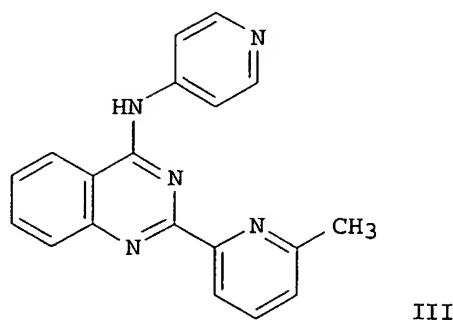
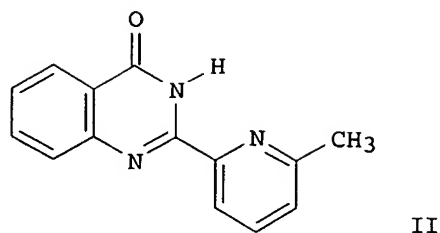
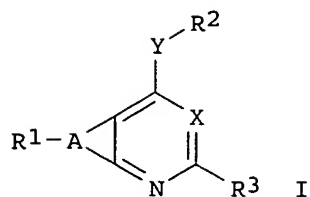
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004065392	A1	20040805	WO 2004-EP650	20040126
WO 2004065392	C1	20041007		

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI

PRIORITY APPLN. INFO.: GB 2003-1719 A 20030124  
GB 2003-8706 A 20030415  
GB 2003-15519 A 20030702

OTHER SOURCE(S): MARPAT 141:174181  
GI



AB Condensed pyridines and pyrimidines (quinolines, quinazolines and thienopyrimidines) of formula I [X is N or CH; Y is -NR- or -NHCH<sub>2</sub>-; R is alkyl; A is a fused 5-7 membered carbocyclic or N/O/S-heterocyclic ring with one or more R<sub>1</sub> groups; R<sub>1</sub> is H, halo, NO<sub>2</sub>, alkyl, OR, CONR<sub>4</sub>R<sub>5</sub>, O(CH<sub>2</sub>)<sub>n</sub>NR<sub>4</sub>R<sub>5</sub>, (CH<sub>2</sub>)<sub>n</sub>NR<sub>4</sub>R<sub>5</sub>, or NR<sub>4</sub>R<sub>5</sub>; R<sub>2</sub> is certain N-containing heterocyclic rings; R<sub>3</sub> is pyridin-2-yl, C1-6alkyl-pyridin-2-yl, -pyrrol-2-yl or -thiazol-2-yl; R<sub>4</sub> is H or alkyl; R<sub>5</sub> is alkyl; NR<sub>4</sub>R<sub>5</sub> can be 3-7 membered (un)saturated N/O/S-heterocycle] and their pharmaceutically acceptable salts, solvates or derivs. were synthesized. Thus, 2-aminobenzamide was coupled with 6-methyl-2-pyridinecarboxylic acid in the presence of EDCI/HOBT followed by cyclocondensation mediated by NaOH to give quinazolinone II. Chlorination of II with POCl<sub>3</sub> and subsequent substitution of the resulting chloride with 4-aminopyridine afforded quinazoline III. These compds. are inhibitors of the transforming growth factor *TGF*- $\beta$ , especially of activin-like kinase ALK-5 receptor, and are used in the treatment and prevention of various disease states mediated by ALK-5 kinase mechanisms such as kidney fibrosis. All the final products showed ALK5 receptor modulator activity with IC<sub>50</sub> of 1-200 nM (16 nM for III) and *TGF*- $\beta$  cellular activity with IC<sub>50</sub> of 0.001-10  $\mu$ M (82 nM for III). The role of ALK5 inhibitors for the treatment of photoaging was also demonstrated exptl.

IT 733807-00-6P 733807-01-7P 733807-02-8P  
733807-03-9P 733807-04-0P 733807-05-1P  
733807-06-2P 733807-07-3P 733807-09-5P  
733807-10-8P 733807-12-0P

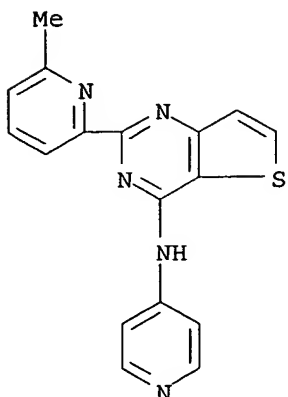
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of quinolines, quinazolines and thienopyrimidines as ALK-5 receptor ligands for the treatment of, e.g., kidney fibrosis)

RN 733807-00-6 HCAPLUS

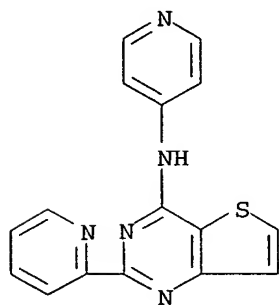
CN Thieno[3,2-d]pyrimidin-4-amine, 2-(6-methyl-2-pyridinyl)-N-4-pyridinyl-

(9CI) (CA INDEX NAME)



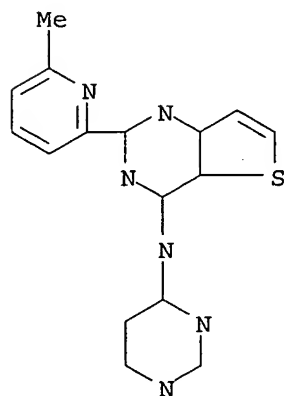
RN 733807-01-7 HCAPLUS

CN Thieno[3,2-d]pyrimidin-4-amine, 2-(2-pyridinyl)-N-4-pyridinyl- (9CI) (CA INDEX NAME)



RN 733807-02-8 HCAPLUS

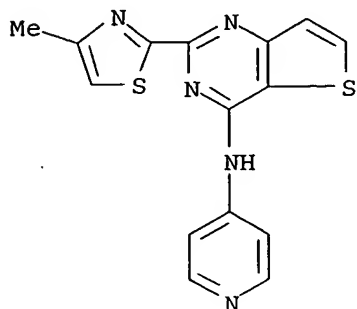
CN Thieno[3,2-d]pyrimidin-4-amine, 2-(6-methyl-2-pyridinyl)-N-4-pyrimidinyl- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

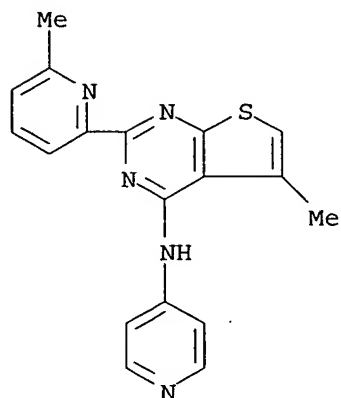
RN 733807-03-9 HCAPLUS

CN Thieno[3,2-d]pyrimidin-4-amine, 2-(4-methyl-2-thiazolyl)-N-4-pyridinyl-  
(9CI) (CA INDEX NAME)



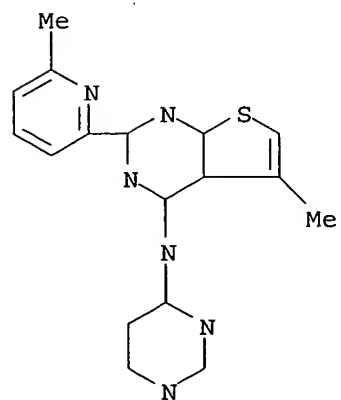
RN 733807-04-0 HCAPLUS

CN Thieno[2,3-d]pyrimidin-4-amine, 5-methyl-2-(6-methyl-2-pyridinyl)-N-4-  
pyridinyl- (9CI) (CA INDEX NAME)



RN 733807-05-1 HCAPLUS

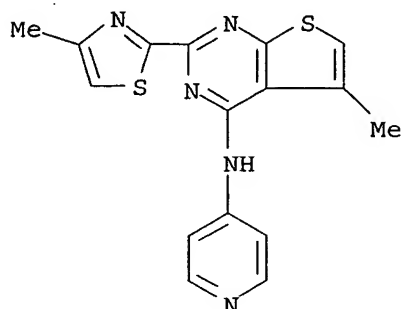
CN Thieno[2,3-d]pyrimidin-4-amine, 5-methyl-2-(6-methyl-2-pyridinyl)-N-4-  
pyrimidinyl- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

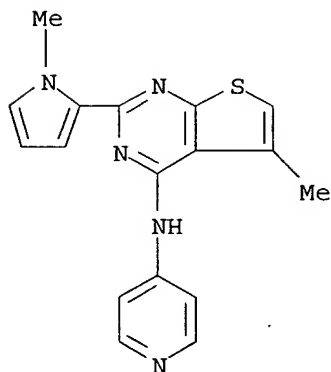
RN 733807-06-2 HCAPLUS

CN Thieno[2,3-d]pyrimidin-4-amine, 5-methyl-2-(4-methyl-2-thiazolyl)-N-4-pyridinyl- (9CI) (CA INDEX NAME)



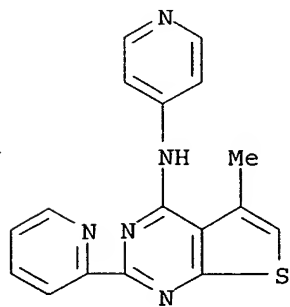
RN 733807-07-3 HCAPLUS

CN Thieno[2,3-d]pyrimidin-4-amine, 5-methyl-2-(1-methyl-1H-pyrrol-2-yl)-N-4-pyridinyl- (9CI) (CA INDEX NAME)



RN 733807-09-5 HCAPLUS

CN Thieno[2,3-d]pyrimidin-4-amine, 5-methyl-2-(2-pyridinyl)-N-4-pyridinyl- (9CI) (CA INDEX NAME)



RN 733807-10-8 HCAPLUS

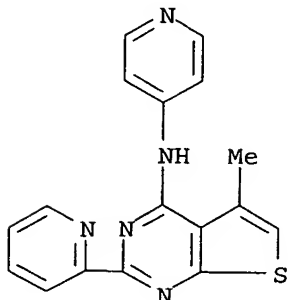
CN Thieno[2,3-d]pyrimidin-4-amine, 5-methyl-2-(2-pyridinyl)-N-4-pyridinyl-,

mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 733807-09-5

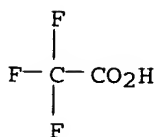
CMF C17 H13 N5 S



CM 2

CRN 76-05-1

CMF C2 H F3 O2



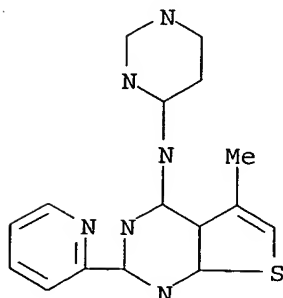
RN 733807-12-0 HCAPLUS

CN Thieno[2,3-d]pyrimidin-4-amine, 5-methyl-2-(2-pyridinyl)-N-4-pyrimidinyl-,  
mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 733807-11-9

CMF C16 H12 N6 S



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

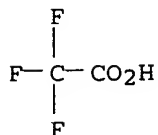
Saloni Sharma

08/15/2006



CM 2

CRN 76-05-1  
CMF C2 H F3 O2

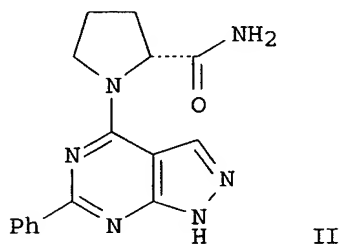
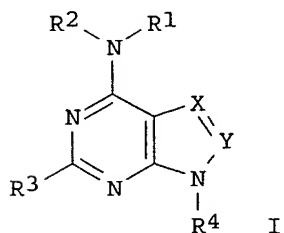


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 2 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2003:570644 HCAPLUS  
DOCUMENT NUMBER: 139:133575  
TITLE: Preparation of bicyclic pyrimidinyl derivatives as adenosine receptor ligands  
INVENTOR(S): Castelhana, Arlindo L.; McKibben, Bryan  
PATENT ASSIGNEE(S): OSI Pharmaceuticals Inc., USA  
SOURCE: U.S. Pat. Appl. Publ., 105 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003139427	A1	20030724	US 2002-227378	20020823
PRIORITY APPLN. INFO.:			US 2002-227378	20020823
OTHER SOURCE(S):	MARPAT	139:133575		

GI



AB Title compds. I [Y = N, CR5 and X = N, CR6 wherein X, Y are both N or when Y = CR5, X = N or when X = CR6, Y = N; R1-2 = H, alkoxy, aminoalkyl, etc; R3-4 = H, alkyl, aryl, alkylaryl] are prepared For instance, 3-amino-4-carbamoylpyrazole is acylated with benzoyl chloride (Pyridine, 50°, 5-6 h), cyclized to the corresponding pyrazolopyrimidine (water, K2CO3, 100°, 16 h), converted to the chloride (POCl3, 106°, 2 h) and used for reactions with various amines to give the example compds., e.g., II. II has Ki = 76.7 nM for the adenosine A1

receptor,  $K_i = 242.7$  nM for A2a and  $K_i = 1480.5$  nM for A2b. I are useful for the treatment of.

IT 251946-19-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation);

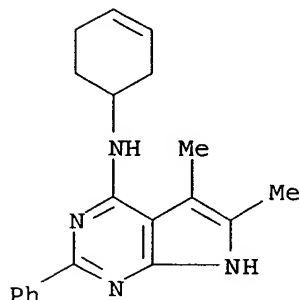
THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)

(preparation of bicyclic pyrazolo- imidazo- and triazolopyrimidinyl derivs. as adenosine receptor ligands)

RN 251946-19-7 HCAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, N-3-cyclohexen-1-yl-5,6-dimethyl-2-phenyl- (9CI) (CA INDEX NAME)



L69 ANSWER 3 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:215739 HCAPLUS

DOCUMENT NUMBER: 139:85151

TITLE: N-Phenyl-N-purin-6-yl ureas: The design and synthesis of p38 $\alpha$  MAP kinase inhibitors

AUTHOR(S): Wan, Zehong; Boehm, Jeffrey C.; Bower, Michael J.; Kassis, Shouki; Lee, John C.; Zhao, Baoguang; Adams, Jerry L.

CORPORATE SOURCE: Department of Medicinal Chemistry, Respiratory and Inflammation CEDD, GlaxoSmithKline Pharmaceuticals, King of Prussia, PA, 19406, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2003), 13(6), 1191-1194

CODEN: BMCLE8; ISSN: 0960-894X

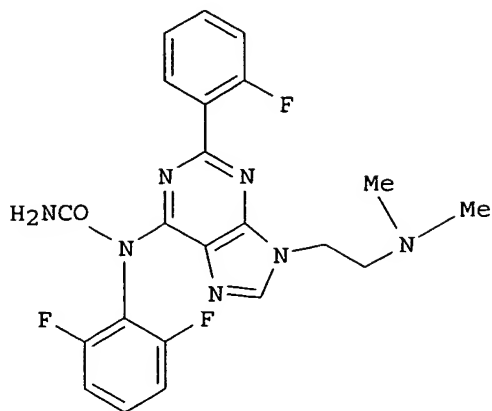
PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:85151

GI



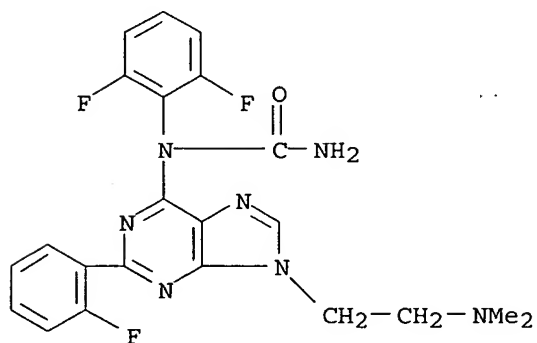
AB The design, synthesis and SAR of a series of 2,6,9-trisubstituted purine inhibitors of p38 $\alpha$  kinase is reported. Synthetic routes were devised to allow for array synthesis in which all three points of diversity could be facilely explored. The binding of this novel series to p38 $\alpha$  kinase, which was predicted to have several key interactions in common with SB-203580, was confirmed by x-ray crystallog. of I (p38 IC50=82 nM).

IT 552315-20-5P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of N-phenyl-N-purin-6-yl ureas as p38 $\alpha$  MAP kinase inhibitors)

RN 552315-20-5 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-[9-[2-(dimethylamino)ethyl]-2-(2-fluorophenyl)-9H-purin-6-yl]- (9CI) (CA INDEX NAME)

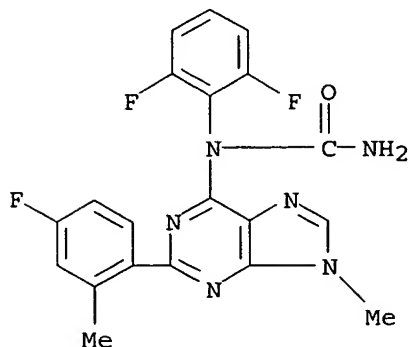


IT 552315-11-4P 552315-14-7P 552315-21-6P  
552315-22-7P 552315-23-8P 552315-24-9P  
552315-25-0P 552315-26-1P 552315-27-2P  
552315-28-3P 552315-29-4P 552315-30-7P  
552315-31-8P 552315-32-9P 552315-33-0P  
552315-34-1P 552315-35-2P 552315-36-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of N-phenyl-N-purin-6-yl ureas as p38 $\alpha$  MAP kinase inhibitors)

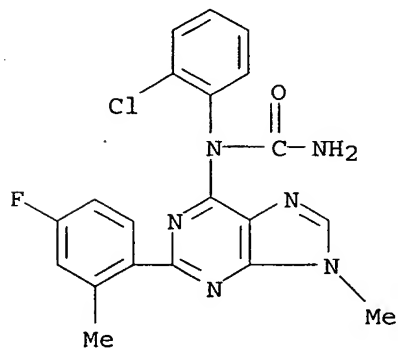
RN 552315-11-4 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-[2-(4-fluoro-2-methylphenyl)-9-methyl-9H-purin-6-yl]- (9CI) (CA INDEX NAME)



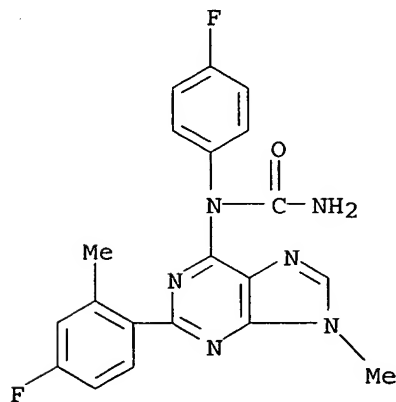
RN 552315-14-7 HCAPLUS

CN Urea, N-(2-chlorophenyl)-N-[2-(4-fluoro-2-methylphenyl)-9-methyl-9H-purin-6-yl]- (9CI) (CA INDEX NAME)



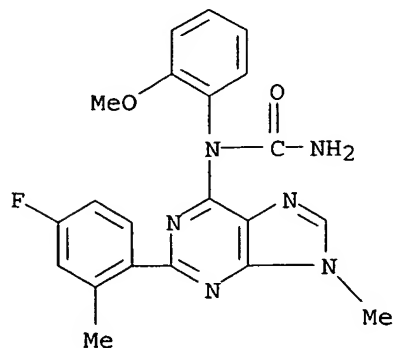
RN 552315-21-6 HCAPLUS

CN Urea, N-[2-(4-fluoro-2-methylphenyl)-9-methyl-9H-purin-6-yl]-N-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



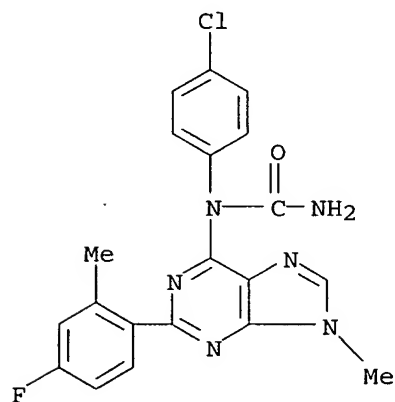
RN 552315-22-7 HCAPLUS

CN Urea, N-[2-(4-fluoro-2-methylphenyl)-9-methyl-9H-purin-6-yl]-N-(2-methoxyphenyl)- (9CI) (CA INDEX NAME)



RN 552315-23-8 HCAPLUS

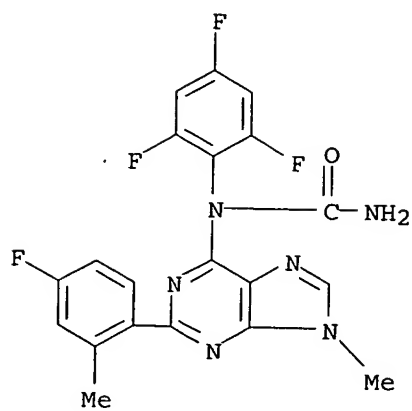
CN Urea, N-(4-chlorophenyl)-N-[2-(4-fluoro-2-methylphenyl)-9-methyl-9H-purin-6-yl]- (9CI) (CA INDEX NAME)



RN 552315-24-9 HCAPLUS

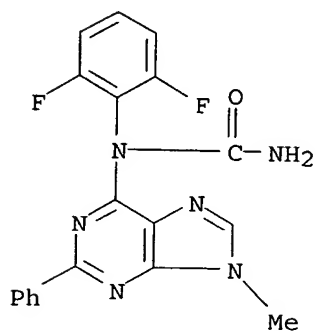
CN Urea, N-[2-(4-fluoro-2-methylphenyl)-9-methyl-9H-purin-6-yl]-N-(2,4,6-trifluorophenyl)- (9CI) (CA INDEX NAME)





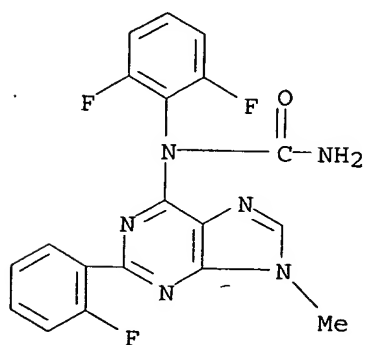
RN 552315-25-0 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-(9-methyl-2-phenyl-9H-purin-6-yl)- (9CI)  
(CA INDEX NAME)



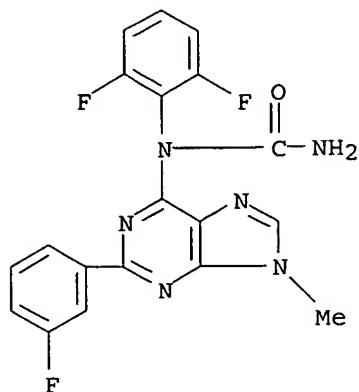
RN 552315-26-1 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-[2-(2-fluorophenyl)-9-methyl-9H-purin-6-yl]-  
(9CI) (CA INDEX NAME)



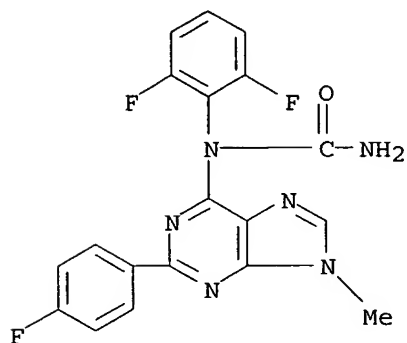
RN 552315-27-2 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-[2-(3-fluorophenyl)-9-methyl-9H-purin-6-yl]-  
(9CI) (CA INDEX NAME)



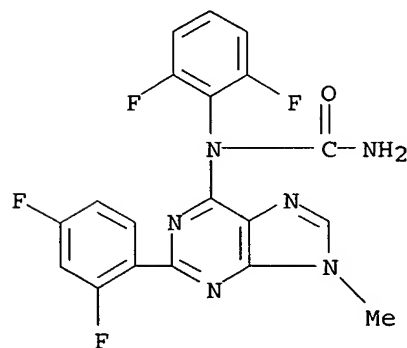
RN 552315-28-3 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-[2-(4-fluorophenyl)-9-methyl-9H-purin-6-yl]-  
(9CI) (CA INDEX NAME)



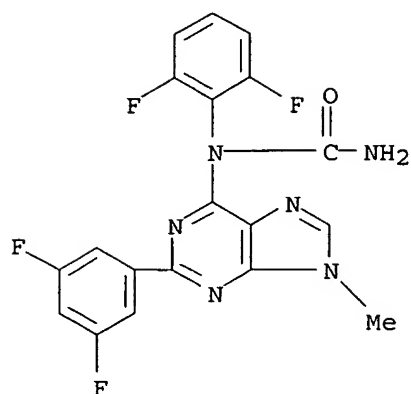
RN 552315-29-4 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-[2-(2,4-difluorophenyl)-9-methyl-9H-purin-6-  
yl]- (9CI) (CA INDEX NAME)



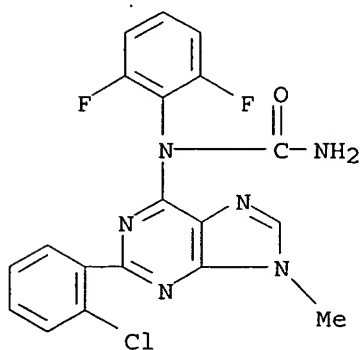
RN 552315-30-7 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-[2-(3,5-difluorophenyl)-9-methyl-9H-purin-6-  
yl]- (9CI) (CA INDEX NAME)



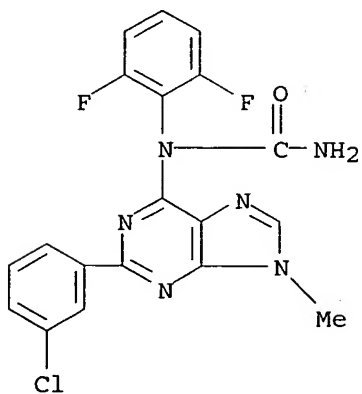
RN 552315-31-8 HCAPLUS

CN Urea, N-[2-(2-chlorophenyl)-9-methyl-9H-purin-6-yl]-N-(2,6-difluorophenyl)-  
(9CI) (CA INDEX NAME)



RN 552315-32-9 HCAPLUS

CN Urea, N-[2-(3-chlorophenyl)-9-methyl-9H-purin-6-yl]-N-(2,6-difluorophenyl)-  
(9CI) (CA INDEX NAME)

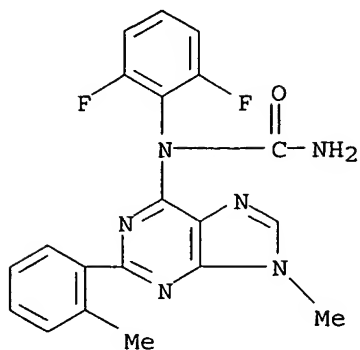


RN 552315-33-0 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-[9-methyl-2-(2-methylphenyl)-9H-purin-6-yl]-

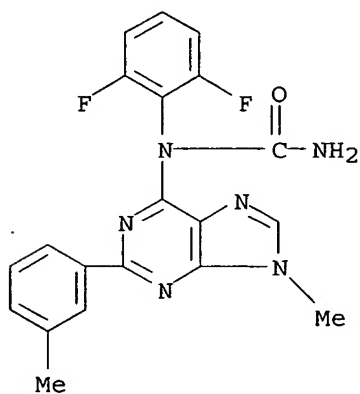


(9CI) (CA INDEX NAME)



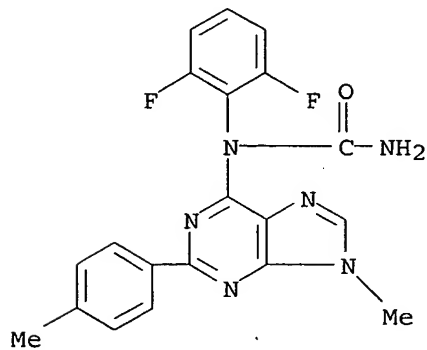
RN 552315-34-1 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-[9-methyl-2-(3-methylphenyl)-9H-purin-6-yl]-  
(9CI) (CA INDEX NAME)



RN 552315-35-2 HCAPLUS

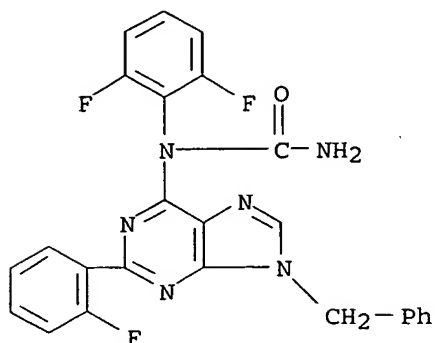
CN Urea, N-(2,6-difluorophenyl)-N-[9-methyl-2-(4-methylphenyl)-9H-purin-6-yl]-  
(9CI) (CA INDEX NAME)



RN 552315-36-3 HCAPLUS

CN Urea, N-(2,6-difluorophenyl)-N-[2-(2-fluorophenyl)-9-(phenylmethyl)-9H-

purin-6-yl]- (9CI) (CA INDEX NAME)



IT 552315-10-3P 552315-13-6P 552315-17-0P

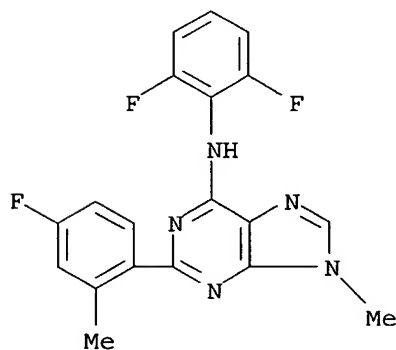
552315-18-1P 552315-19-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of N-phenyl-N-purin-6-yl ureas as p38 $\alpha$  MAP kinase inhibitors)

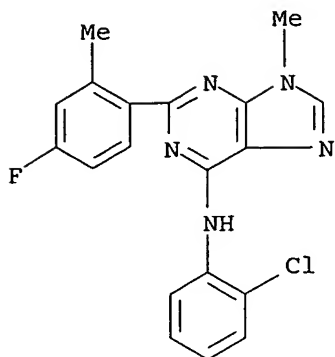
RN 552315-10-3 HCAPLUS

CN 9H-Purin-6-amine, N-(2,6-difluorophenyl)-2-(4-fluoro-2-methylphenyl)-9-methyl- (9CI) (CA INDEX NAME)



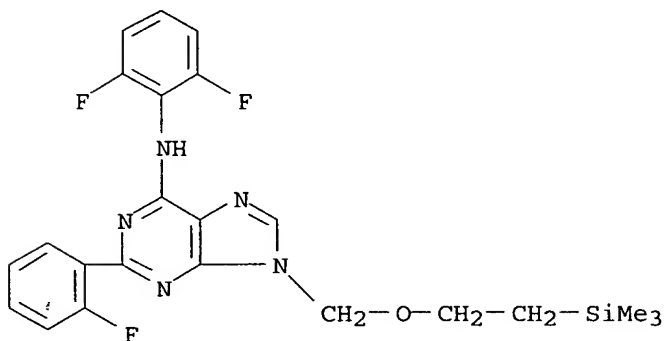
RN 552315-13-6 HCAPLUS

CN 9H-Purin-6-amine, N-(2-chlorophenyl)-2-(4-fluoro-2-methylphenyl)-9-methyl- (9CI) (CA INDEX NAME)



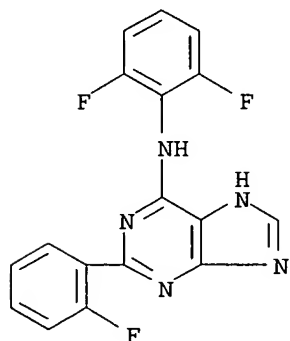
RN 552315-17-0 HCAPLUS

CN 9H-Purin-6-amine, N-(2,6-difluorophenyl)-2-(2-fluorophenyl)-9-[[2-(trimethylsilyl)ethoxy]methyl]- (9CI) (CA INDEX NAME)



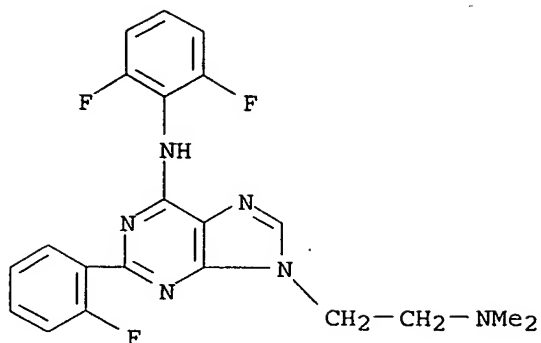
RN 552315-18-1 HCAPLUS

CN 1H-Purin-6-amine, N-(2,6-difluorophenyl)-2-(2-fluorophenyl)- (9CI) (CA INDEX NAME)



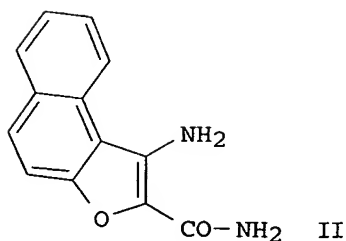
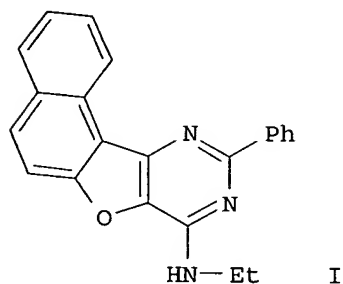
RN 552315-19-2 HCAPLUS

CN 9H-Purine-9-ethanamine, 6-[(2,6-difluorophenyl)amino]-2-(2-fluorophenyl)-N,N-dimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 4 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2003:48109 HCAPLUS  
DOCUMENT NUMBER: 138:321235  
TITLE: Synthesis and pharmacological evaluation of some naphtho [2,1-b] furo [3,2-d] pyrimidines  
AUTHOR(S): Padmashali, Basavaraj; Vaidya, V. P.; Kumar, M. L. Vijaya  
CORPORATE SOURCE: Department of Chemistry, Jnana Sahyadri, Kuvempu University, Shankaraghatta, 577 451, India  
SOURCE: Indian Journal of Heterocyclic Chemistry (2002), 12(2), 89-94  
CODEN: IJCHEI; ISSN: 0971-1627  
PUBLISHER: Prof. R. S. Varma  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:321235  
GI



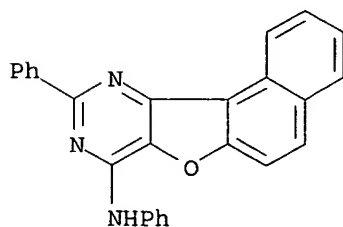
AB Several naphthofuopyrimidines, e.g. I, were synthesized via Thorpe-Ziegler cyclization to intermediate II and nucleophilic substitution and evaluated for antimicrobial, anthelmintic and antiinflammatory activities.

IT 514829-02-8P 514829-03-9P 514829-04-0P  
514829-05-1P 514829-06-2P 514829-07-3P  
514829-08-4P 514829-09-5P 514829-10-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation);  
BIOL (Biological study); PREP (Preparation)  
(synthesis of naphthofuopyrimidines via Thorpe-Ziegler cyclization and nucleophilic substitution and evaluation of their antimicrobial, anthelmintic and antiinflammatory activities)

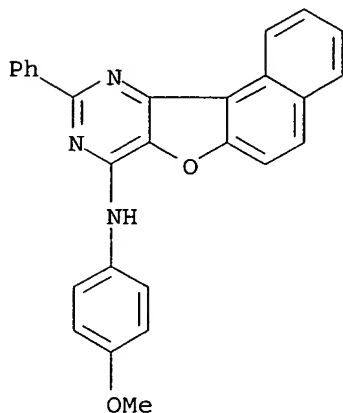
RN 514829-02-8 HCAPLUS

CN Naphtho[1',2':4,5]furo[3,2-d]pyrimidin-8-amine, N,10-diphenyl- (9CI) (CA INDEX NAME)



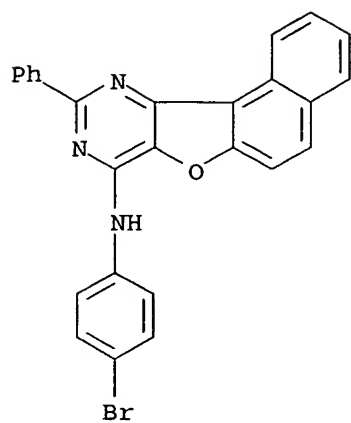
RN 514829-03-9 HCAPLUS

CN Naphtho[1',2':4,5]furo[3,2-d]pyrimidin-8-amine, N-(4-methoxyphenyl)-10-phenyl- (9CI) (CA INDEX NAME)



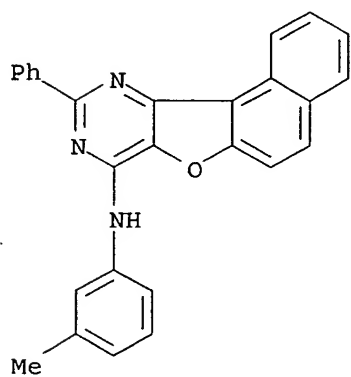
RN 514829-04-0 HCAPLUS

CN Naphtho[1',2':4,5]furo[3,2-d]pyrimidin-8-amine, N-(4-bromophenyl)-10-phenyl- (9CI) (CA INDEX NAME)



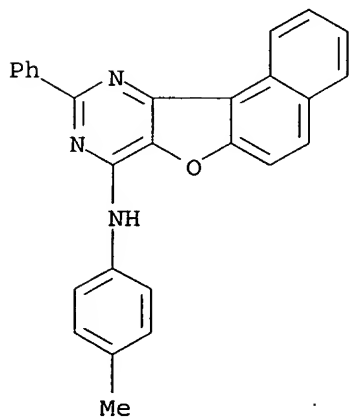
RN 514829-05-1 HCAPLUS

CN Naphtho[1',2':4,5]furo[3,2-d]pyrimidin-8-amine, N-(3-methylphenyl)-10-phenyl- (9CI) (CA INDEX NAME)



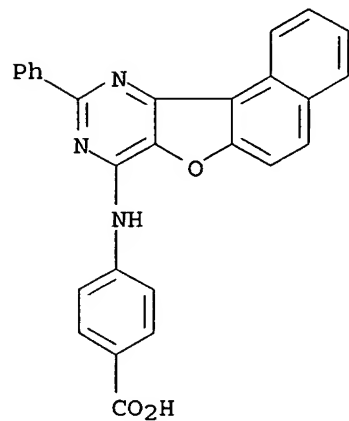
RN 514829-06-2 HCAPLUS

CN Naphtho[1',2':4,5]furo[3,2-d]pyrimidin-8-amine, N-(4-methylphenyl)-10-phenyl- (9CI) (CA INDEX NAME)



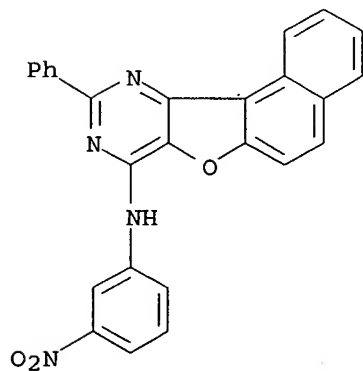
RN 514829-07-3 HCAPLUS

CN Benzoic acid, 4-[(10-phenylnaphtho[1',2':4,5]furo[3,2-d]pyrimidin-8-yl)amino]- (9CI) (CA INDEX NAME)



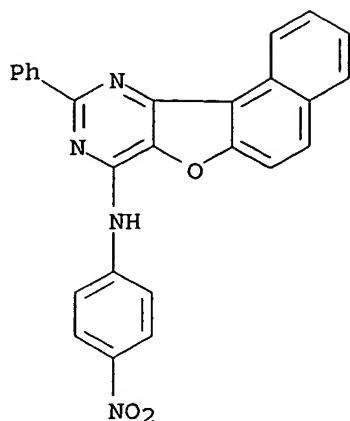
RN 514829-08-4 HCAPLUS

CN Naphtho[1',2':4,5]furo[3,2-d]pyrimidin-8-amine, N-(3-nitrophenyl)-10-phenyl- (9CI) (CA INDEX NAME)



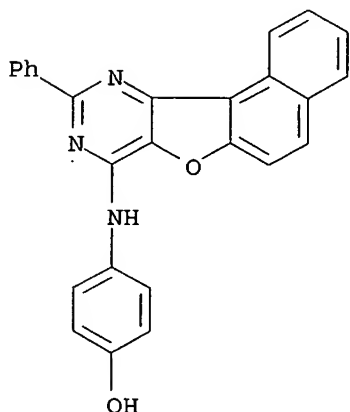
RN 514829-09-5 HCAPLUS

CN Naphtho[1',2':4,5]furo[3,2-d]pyrimidin-8-amine, N-(4-nitrophenyl)-10-phenyl- (9CI) (CA INDEX NAME)



RN 514829-10-8 HCAPLUS

CN Phenol, 4-[(10-phenylnaphtho[1',2':4,5]furo[3,2-d]pyrimidin-8-yl)amino] -  
(9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 5 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:353359 HCAPLUS

DOCUMENT NUMBER: 136:102346

TITLE: Synthesis of some new substituted thieno[2,3-d]pyrimidines and related heterocyclic systems

AUTHOR(S): El-Baih, Fatma E. M.; Al-Taisan, Khlood M.; Al-Hazimi, Hassan M. A.

CORPORATE SOURCE: Department of Chemistry, College of Science, King Saud University, Riyadh, 11451, Saudi Arabia

SOURCE: Journal of Saudi Chemical Society (2000), 4(3), 281-290

CODEN: JSCSFO; ISSN: 1319-6103

PUBLISHER: Saudi Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:102346

AB Several substituted thieno[2,3-d]pyrimidines were synthesized from the



intermediates 2-amino-3-ethoxycarbonylthiophene and 2-aminothiophene-3-carbonitrile derivs. which in turn were obtained from the reaction of the corresponding ketones, Et cyanoacetate (or malononitrile) and sulfur in the presence of diethylamine. Attempts of cyclization of some substituted thieno[2,3-d]pyrimidines to thienotriazolo pyrimidines were also carried out. The structures of the prepared heterocycles were mainly confirmed on the basis of spectroscopic methods.

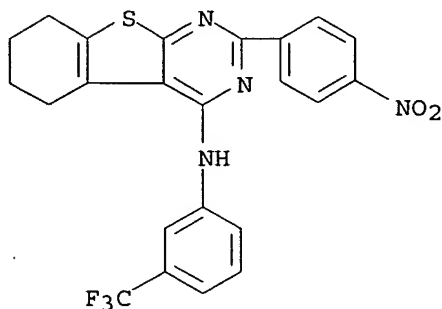
IT 389088-19-1P 389088-20-4P 389088-21-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of thieno[2,3-d]pyrimidines and related heterocyclic compds.)

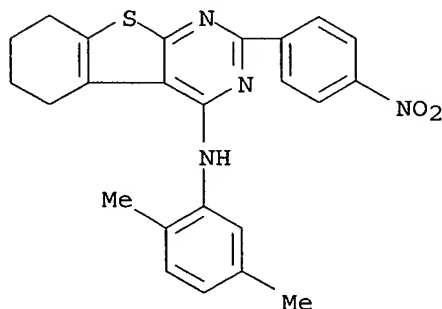
RN 389088-19-1 HCAPLUS

CN [1]Benzothieno[2,3-d]pyrimidin-4-amine, 5,6,7,8-tetrahydro-2-(4-nitrophenyl)-N-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



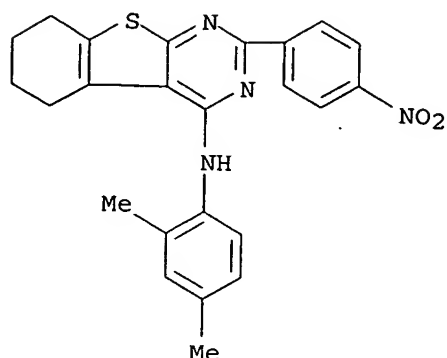
RN 389088-20-4 HCAPLUS

CN [1]Benzothieno[2,3-d]pyrimidin-4-amine, N-(2,5-dimethylphenyl)-5,6,7,8-tetrahydro-2-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 389088-21-5 HCAPLUS

CN [1]Benzothieno[2,3-d]pyrimidin-4-amine, N-(2,4-dimethylphenyl)-5,6,7,8-tetrahydro-2-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 6 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:784866 HCAPLUS

DOCUMENT NUMBER: 134:207777

TITLE: Synthesis of some benzofuro[3,2-d]pyrimidine derivatives as antibacterial and antifungal agents  
AUTHOR(S): Sangapure, S. S.; Veeresh, D. H.; Yadav, Bodke  
CORPORATE SOURCE: Department of Studies and Research in Chemistry, Gulbarga University, Gulbarga, 585 106, India  
SOURCE: Indian Journal of Heterocyclic Chemistry (2000), 10(1), 21-26

PUBLISHER: CODEN: IJCHEI; ISSN: 0971-1627  
Prof. R. S. Varma

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:207777

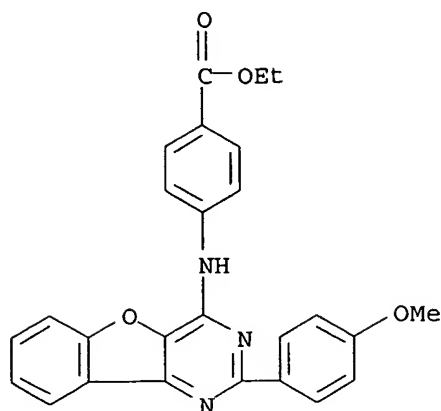
AB Condensation of 3-amino-2-benzofurancarboxamide with aromatic aldehydes in presence of catalytic amount of conc hydrochloric acid gave 2-aryl-3,4-dihydro-4-oxobenzofuro[3,2-d]pyrimidines in a single step. Some 2,4-disubstituted benzofuro[3,2-d]pyrimidines have been synthesized. Benzofuopyrimidine derivs. have been screened for antibacterial and antifungal activity against *S. aureus*, *E. coli* and *C. albicans*.

IT 328403-31-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of some benzofuro[3,2-d]pyrimidine derivs. as antibacterial and antifungal agents)

RN 328403-31-2 HCAPLUS

CN Benzoic acid, 4-[[2-(4-methoxyphenyl)benzofuro[3,2-d]pyrimidin-4-yl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 7 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:571295 HCAPLUS

DOCUMENT NUMBER: 131:281026

TITLE: Selective A1-adenosine receptor antagonists identified using yeast *Saccharomyces cerevisiae* functional assays  
AUTHOR(S): Campbell, Robert M.; Cartwright, Craig; Chen, Wei; Chen, Yong; Duzic, Emir; Fu, Jian-Min; Loveland, Michelle; Manning, Ron; McKibben, Bryan; Pleiman, Christopher M.; Silverman, Lauren; Trueheart, Joshua; Webb, David R.; Wilkinson, Vicki; Witter, David J.; Xie, Xiaobing; Castelhana, Arlindo L.

CORPORATE SOURCE: Cadus Pharmaceutical Corporation, Tarrytown, NY, 10591, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (1999), 9(16), 2413-2418

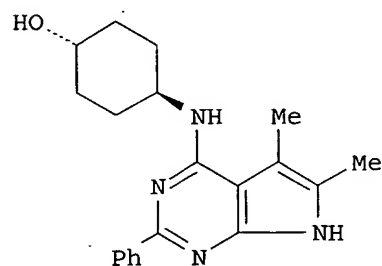
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



I

AB Evaluation of a biased "library" of pyrrolo[2,3-d]pyrimidines using yeast-based functional assays expressing human A1- and A2a-adenosine

receptors, led to the A1 selective antagonist I. A direct correlation between yeast functional activity and binding data was established. Practical compds. with polar residues at C-4 of the pyrrolopyrimidine system required H-bond donor functionality for high potency.

IT 246855-43-6P 246855-47-0P

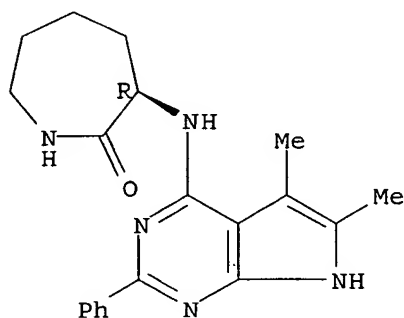
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(selective A1-adenosine receptor antagonists identified using yeast functional assays)

RN 246855-43-6 HCAPLUS

CN 2H-Azepin-2-one, 3-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]hexahydro-, (3R)- (9CI) (CA INDEX NAME)

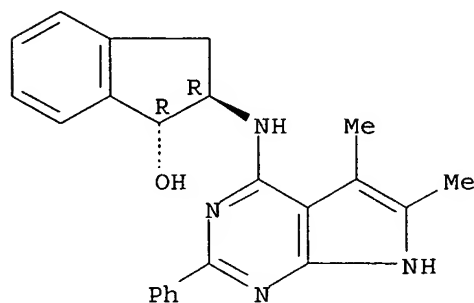
Absolute stereochemistry.



RN 246855-47-0 HCAPLUS

CN 1H-Inden-1-ol, 2-[(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)amino]-2,3-dihydro-, (1R,2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 8 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:9714 HCAPLUS

DOCUMENT NUMBER: 130:71627

TITLE: Compositions and methods for preventing restenosis following revascularization procedures

INVENTOR(S): Martin, Pauline L.; McAfee, Donald A.

PATENT ASSIGNEE(S): Discovery Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 26 pp.

CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9857651	A1	19981223	WO 1998-US12717	19980618
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2295195	AA	19981223	CA 1998-2295195	19980618
AU 9880740	A1	19990104	AU 1998-80740	19980618
AU 740770	B2	20011115		
EP 1014995	A1	20000705	EP 1998-929099	19980618
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002505687	T2	20020219	JP 1999-504810	19980618
US 6372723	B1	20020416	US 1999-456432	19991208
US 2001009907	A1	20010726	US 2001-783032	20010215
US 6339072	B2	20020115		

## PRIORITY APPLN. INFO.:

US 1997-50031P P 19970618  
 WO 1998-US12717 W 19980618  
 US 1999-456432 A3 19991208

AB In the present invention, a method is provided which reduces or prevents restenosis following revascularization procedures. It has now been found that selective stimulation of adenosine A2A receptors can reduce or prevent such restenosis. This method may be achieved either by: (a) the administration of selective adenosine A2A receptor agonists, (b) the administration of a selective adenosine A1 antagonist in combination with either a selective adenosine A2A receptor agonist or a non-selective adenosine agonist, or (c) the administration of a selective adenosine A1 antagonist in order to block adenosine A1 receptor activation by endogenously-released adenosine. The present invention is also directed to an improved *surgical* procedure that relies upon selective stimulation of adenosine A2A receptors. The degree of arterial stenosis in rabbits after *angioplasty* treated with the adenosine A2A selective agonist 2-cyclohexylmethylenhydrazinoadenosine was significantly less than arterial stenosis in rabbits treated with vehicle.

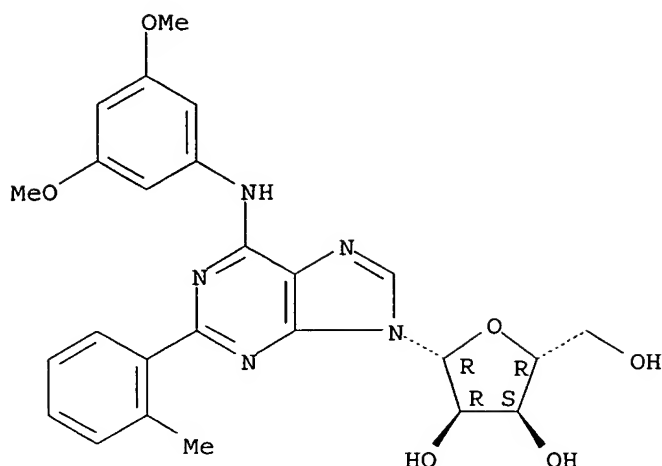
## IT 218284-48-1

RL: *THU (Therapeutic use)*; BIOL (Biological study); USES (Uses)  
 (comps. for preventing restenosis following revascularization procedures)

RN 218284-48-1 HCAPLUS

CN Adenosine, N-(3,5-dimethoxyphenyl)-2-(2-methylphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 9 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:981370 HCAPLUS

DOCUMENT NUMBER: 124:105595

TITLE: N(6) or N(9) substituted 2-phenyl-8-azaadenines: affinity for A1 adenosine receptors. VII

AUTHOR(S): Biagi, Giuliana; Giorgi, Irene; Livi, Oreste; Scartoni, Valerio; Breschi, Cristina; Martini, Claudia; Scatizzi, Roberta

CORPORATE SOURCE: Dip. Sci. Farm., Fac. Farm., Pisa, 56126, Italy

SOURCE: Farmaco (1995), 50(10), 659-67

CODEN: FRMCE8

PUBLISHER: Societa Chimica Italiana

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The A1 activities shown resp. by N-6 or N-9 substituted 8-azaadenines were compared. At least in some cases, the biol. results indicated the ability of the receptor to accept the exogenous mol. in various arrangements, and an attempt at rationalizing these arrangements was made by means of a model with 2 different mol. orientations.

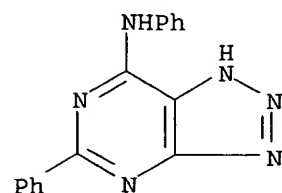
IT 173100-46-4P

RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)

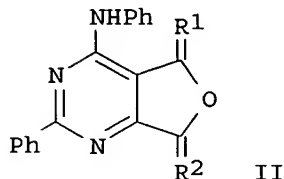
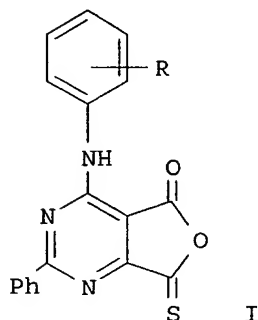
(preparation and A1 adenosine receptors binding of phenylazaadenines)

RN 173100-46-4 HCAPLUS

CN 1H-1,2,3-Triazolo[4,5-d]pyrimidin-7-amine, N,5-diphenyl- (9CI) (CA INDEX NAME)



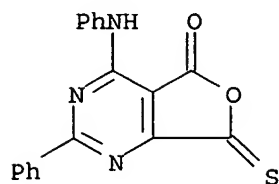
L69 ANSWER 10 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1995:217282 HCAPLUS  
DOCUMENT NUMBER: 122:128378  
TITLE: Antibacterial properties of some 2,7-dihydrofuro[3,4-d]-pyrimidines  
AUTHOR(S): Pluta, Janusz; Flendrich, Mariola; Cieplik, Jerzy; Krolicki, Zbigniew A.  
CORPORATE SOURCE: Inst. Appl. Pharm., Sch. Med., Wroclaw, 50137, Pol.  
SOURCE: Acta Poloniae Pharmaceutica (1994), 51(1), 55-8  
CODEN: APPHAX; ISSN: 0001-6837  
PUBLISHER: Polish Pharmaceutical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



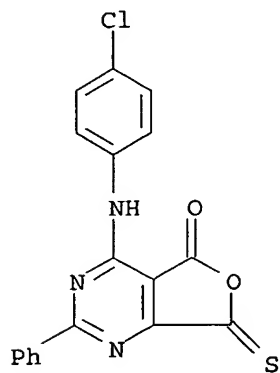
AB Antibacterial screening data against *Staphylococcus aureus*, *Proteus vulgaris*, *Pseudomonas aeruginosa* and *Escherichia coli* were reported for I (R = H, 2-Cl, 4-Cl, 4-EtO, 4-Me, 4-OH) and II (R1 = (E)- and (Z)-CH<sub>2</sub>CH<sub>2</sub>NEt<sub>2</sub>, R2 = O; R1 = R2 = 4-ClC<sub>6</sub>H<sub>4</sub>N, 3,5-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>N, PrN, ClCH<sub>2</sub>CH<sub>2</sub>N). Highest activities were in the 12 µg/mL order. In the case of I, the activity decreased with increasing electronegativity of R, whereas bulky amine residues lowered the activity of II. Of the two stereoisomers, (Z) was much more active than (E). I (R = 4-Me and 4-OH) were pred. by a known method.

IT 104824-50-2P 104824-51-3P 104824-52-4P  
104824-53-5P 104824-54-6P 118693-91-7P  
118693-93-9P 118693-98-4P 118694-01-2P  
160944-67-2P 160944-68-3P 160944-69-4P  
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)  
(antibacterial properties of 2,7-dihydrofuro[3,4-d]-pyrimidines)

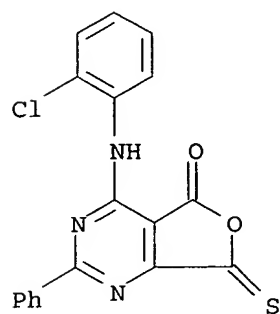
RN 104824-50-2 HCAPLUS  
CN Furo[3,4-d]pyrimidin-5(7H)-one, 2-phenyl-4-(phenylamino)-7-thioxo- (9CI)  
(CA INDEX NAME)



RN 104824-51-3 HCAPLUS  
CN Furo[3,4-d]pyrimidin-5(7H)-one, 4-[(4-chlorophenyl)amino]-2-phenyl-7-thioxo- (9CI) (CA INDEX NAME)

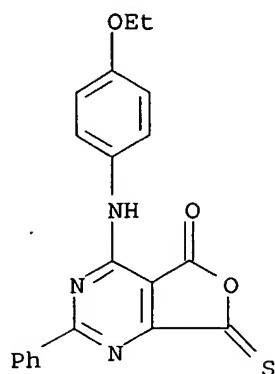


RN 104824-52-4 HCAPLUS  
CN Furo[3,4-d]pyrimidin-5(7H)-one, 4-[(2-chlorophenyl)amino]-2-phenyl-7-thioxo- (9CI) (CA INDEX NAME)



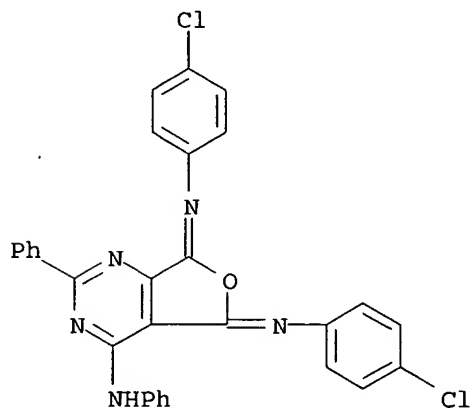
RN 104824-53-5 HCAPLUS  
CN Furo[3,4-d]pyrimidin-5(7H)-one, 4-[(4-ethoxyphenyl)amino]-2-phenyl-7-thioxo- (9CI) (CA INDEX NAME)





RN 104824-54-6 HCAPLUS

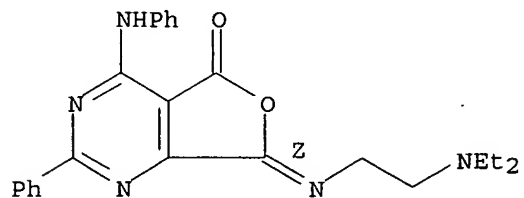
CN Furo[3,4-d]pyrimidin-4-amine, 5,7-bis[(4-chlorophenyl)imino]-5,7-dihydro-N,2-diphenyl- (9CI) (CA INDEX NAME)



RN 118693-91-7 HCAPLUS

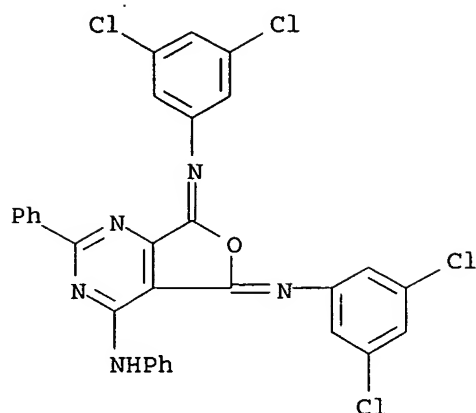
CN Furo[3,4-d]pyrimidin-5(7H)-one, 7-[[2-(diethylamino)ethyl]imino]-2-phenyl-4-(phenylamino)-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 118693-93-9 HCAPLUS

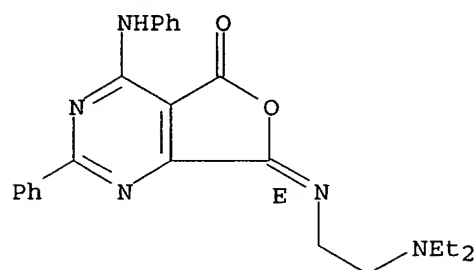
CN Furo[3,4-d]pyrimidin-4-amine, 5,7-bis[(3,5-dichlorophenyl)imino]-5,7-dihydro-N,2-diphenyl- (9CI) (CA INDEX NAME)



RN 118693-98-4 HCAPLUS

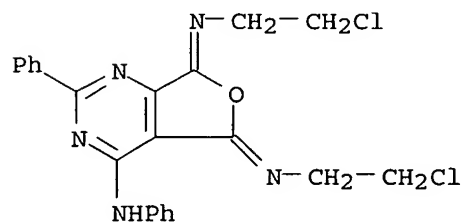
CN Furo[3,4-d]pyrimidin-5(7H)-one, 7-[[2-(diethylamino)ethyl]imino]-2-phenyl-4-(phenylamino)-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



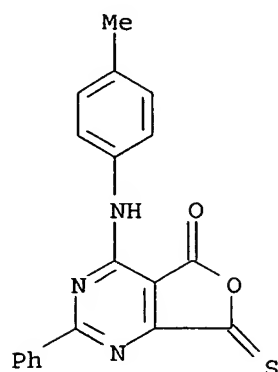
RN 118694-01-2 HCAPLUS

CN Furo[3,4-d]pyrimidin-4-amine, 5,7-bis[(2-chloroethyl)imino]-5,7-dihydro-N,2-diphenyl- (9CI) (CA INDEX NAME)

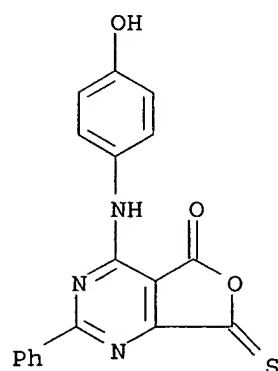


RN 160944-67-2 HCAPLUS

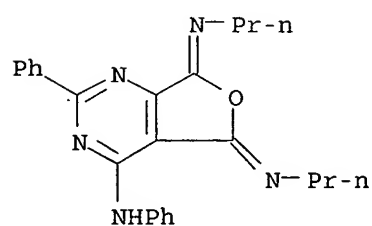
CN Furo[3,4-d]pyrimidin-5(7H)-one, 4-[(4-methylphenyl)amino]-2-phenyl-7-thioxo- (9CI) (CA INDEX NAME)



RN 160944-68-3 HCAPLUS  
CN Furo[3,4-d]pyrimidin-5(7H)-one, 4-[(4-hydroxyphenyl)amino]-2-phenyl-7-thioxo- (9CI) (CA INDEX NAME)

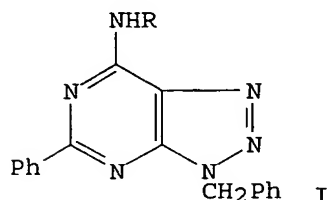


RN 160944-69-4 HCAPLUS  
CN Furo[3,4-d]pyrimidin-4-amine, 5,7-dihydro-N,2-diphenyl-5,7-bis(propylimino)- (9CI) (CA INDEX NAME)



L69 ANSWER 11 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1994:457218 HCAPLUS  
DOCUMENT NUMBER: 121:57218  
TITLE: N(6)-Substituted 2-phenyl-9-benzyl-8-azaadenines.  
Affinity for adenosine A1 and A2 receptors. A  
comparison with 2-N-butyl analogs derivatives. V  
AUTHOR(S): Biagi, Giuliana; Giorgi, Irene; Livi, Oreste;  
Scartoni, Valerio; Lucacchini, Antonio; Martini,

CORPORATE SOURCE: Claudia; Tacchi, Paolo  
Ist. Chim. Farm. Tossicol., Fac. Farm., Pisa, 56126,  
Italy  
SOURCE: Farmaco (1994), 49(3), 187-91  
CODEN: FRMCE8; ISSN: 0014-827X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



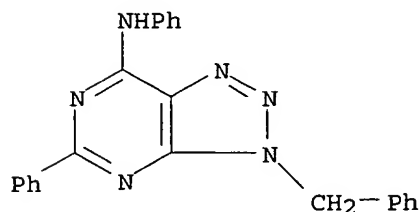
AB The title compds. I (R = H, alkyl, Ph) were prepared to evaluate their affinity towards adenosine A1 and A2 receptors. Some 2-phenyl-N(6)-substituted-8-azaadenines showed good binding properties and good A1 selectivity. The biol. results allow the authors to confirm the presence in A1 receptors of a third lipophilic pocket, able to receive the substituent on N(9), and to evince increased affinity when a Ph group on C(2) substitutes a Bu group. These affinity differences between analogous 2-Bu and 2-Ph derivs. indicate that they arrange themselves within A1 receptors in a similar manner and suggest that this receptor is able to arrange 8-azaadenines, bearing three lipophilic substituents, in two different ways.

IT 156150-99-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and affinity for adenosine A1 and A2 receptors)

RN 156150-99-1 HCAPLUS

CN 3H-1,2,3-Triazolo[4,5-d]pyrimidin-7-amine, N,5-diphenyl-3-(phenylmethyl)-  
(9CI) (CA INDEX NAME)



L69 ANSWER 12 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:453745 HCAPLUS

DOCUMENT NUMBER: 121:53745

TITLE: New pyrido [3,2:4,5] thieno [3,2-D] pyrimidines of possible antimicrobial activity

AUTHOR(S): Michael, J. M.; Kamel, M. M.; El-Zahar, M. I.;

El-Masry, A. H.; Mohi-El-Deen, E. M.

CORPORATE SOURCE: Med. Chem. Dept., Natl. Res. Cent. Dokki, Cairo, Egypt

SOURCE: Al-Azhar Bulletin of Science (1992), 3(2), 767-75

CODEN: ABSCE7; ISSN: 1110-2535

DOCUMENT TYPE: Journal  
LANGUAGE: English

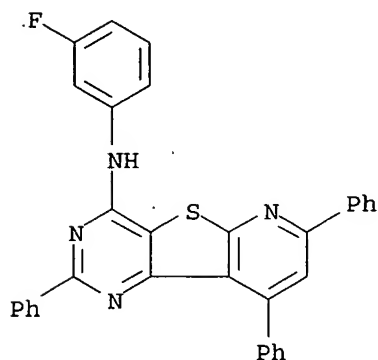
AB For possible antimicrobial activity, 22 of the title compds. were synthesized, starting with 2-amino-2-carbamoyl-4,6-diphenyl thieno [2,3-b] pyridine, by cyclocondensation with different aromatic aldehydes. Rearrangement reaction of the resulted 7,9-diphenyl-1,2-dihydropyrido [3,2:4,5] thieno [3,2-d] pyrimidin-4(3H)-ones gave the corresponding dehydrogenated derivs. Chlorination followed by reaction with different aliphatic or aromatic amines afforded the 4-substituted amino pyridothienopyrimidine derivs. Some of the compds. showed considerable antimicrobial activity.

IT 156331-99-6P 156332-02-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation and antimicrobial activity of)

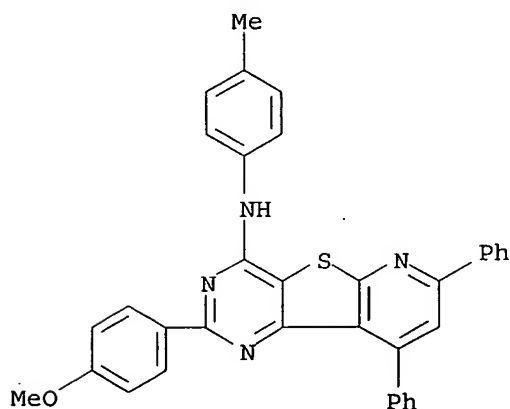
RN 156331-99-6 HCAPLUS

CN Pyrido[3',2':4,5]thieno[3,2-d]pyrimidin-4-amine, N-(3-fluorophenyl)-2,7,9-triphenyl- (9CI) (CA INDEX NAME)



RN 156332-02-4 HCAPLUS

CN Pyrido[3',2':4,5]thieno[3,2-d]pyrimidin-4-amine, 2-(4-methoxyphenyl)-N-(4-methylphenyl)-7,9-diphenyl- (9CI) (CA INDEX NAME)

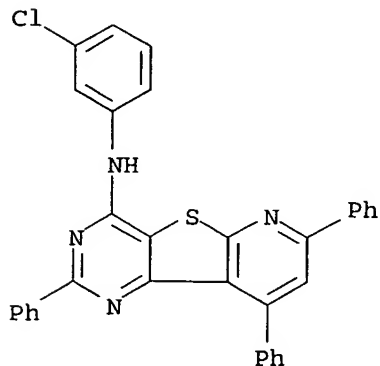


IT 156332-00-2P 156332-01-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

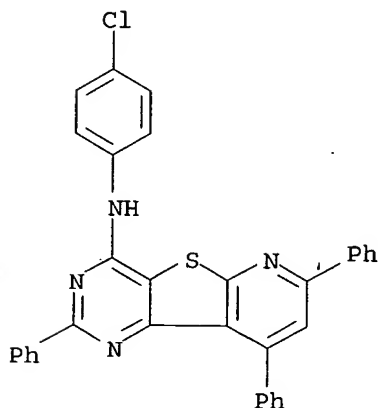
RN 156332-00-2 HCAPLUS

CN Pyrido[3',2':4,5]thieno[3,2-d]pyrimidin-4-amine, N-(3-chlorophenyl)-2,7,9-triphenyl- (9CI) (CA INDEX NAME)



RN 156332-01-3 HCAPLUS

CN Pyrido[3',2':4,5]thieno[3,2-d]pyrimidin-4-amine, N-(4-chlorophenyl)-2,7,9-triphenyl- (9CI) (CA INDEX NAME)



L69 ANSWER 13 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:298579 HCAPLUS

DOCUMENT NUMBER: 120:298579

TITLE: Synthesis and biological properties of  
5-(hydroxymethyl)pyrimidines

AUTHOR(S): Cieplik, Jerzy; Machon, Zdzislaw; Zimecki, Michal;  
Wieczorek, Zbigniew

CORPORATE SOURCE: Org. Chem. Dep., Med. Acad., Wroclaw, 50-137, Pol.  
SOURCE: Archivum Immunologiae et Therapiae Experimentalis  
(1993), 41(1), 11-15

CODEN: AITEAT; ISSN: 0004-069X

DOCUMENT TYPE: Journal

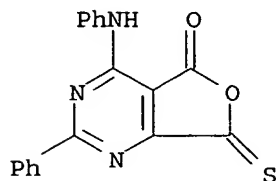
LANGUAGE: English

AB Reduction of 4-(arylamino)-6-methyl-2-phenyl-5-pyrimidinecarboxylic acid and its Et ester as well as 5,7-dihydrofuro[3,4-d]pyrimidines gave 4-(arylamino)-6-methyl-2-phenyl-5-(hydroxymethyl)pyrimidines exhibiting strong immunomodulatory and cytostatic properties.

IT 104824-50-2 118693-90-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reduction of)

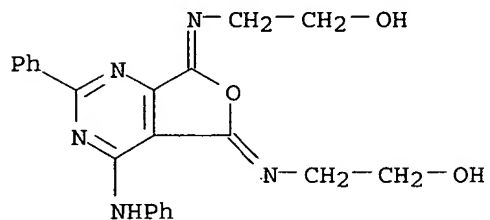
RN 104824-50-2 HCAPLUS

CN Furo[3,4-d]pyrimidin-5(7H)-one, 2-phenyl-4-(phenylamino)-7-thioxo- (9CI)  
(CA INDEX NAME)



RN 118693-90-6 HCAPLUS

CN Ethanol, 2,2'-[[2-phenyl-4-(phenylamino)furo[3,4-d]pyrimidine-5,7-diylidene]dinitrilo]bis- (9CI) (CA INDEX NAME)



L69 ANSWER 14 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:77253 HCAPLUS

DOCUMENT NUMBER: 120:77253

TITLE: Synthesis of 2-phenylbenzofuro[3,2-d]pyrimidine and its derivatives

AUTHOR(S): Mulagi, S. M.; Sangapure, S. S.

CORPORATE SOURCE: Dep. Chem., Gulbarga Univ., Gulbarga, 585 106, India

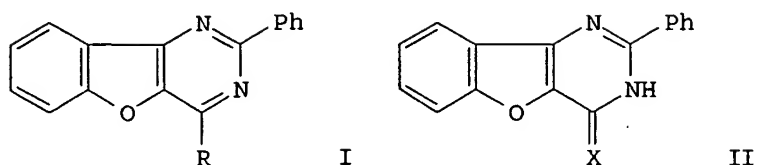
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1993), 32B(9), 965-8

CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



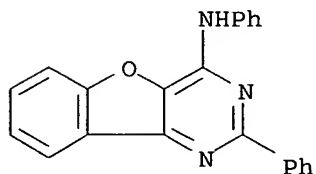
AB 2-Phenylbenzofuro[3,2-d]pyrimidine (I; R = H) and its derivs. I (R = NHR<sub>1</sub>, NME<sub>2</sub>, morpholino, pyrrolidino, piperidino; R<sub>1</sub> = Me, Et, Pr, Ph, 4-ClC<sub>6</sub>H<sub>4</sub>, 4-BrC<sub>6</sub>H<sub>4</sub>, 3-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 2-pyridyl, NH<sub>2</sub>, N:CHPh, N:CHC<sub>6</sub>H<sub>4</sub>OMe-4) and II (X = S) were prepared from 4-chloro derivative I (R = Cl), which in turn has been obtained from 4-oxo derivative II (X = O) by refluxing with POCl<sub>3</sub>.

IT 152012-29-8P 152012-30-1P 152012-31-2P  
152012-32-3P 152012-33-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

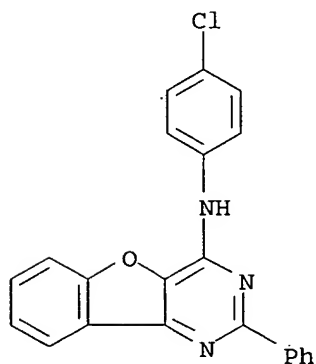
RN 152012-29-8 HCAPLUS

CN Benzofuro[3,2-d]pyrimidin-4-amine, N,2-diphenyl- (9CI) (CA INDEX NAME)



RN 152012-30-1 HCAPLUS

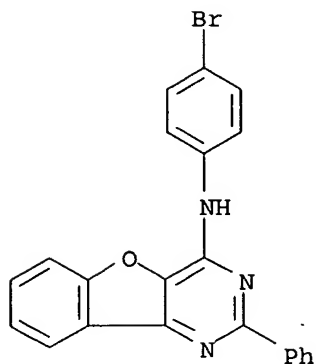
CN Benzofuro[3,2-d]pyrimidin-4-amine, N-(4-chlorophenyl)-2-phenyl- (9CI) (CA INDEX NAME)



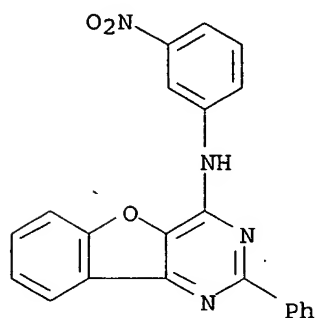
RN 152012-31-2 HCAPLUS

CN Benzofuro[3,2-d]pyrimidin-4-amine, N-(4-bromophenyl)-2-phenyl- (9CI) (CA INDEX NAME)

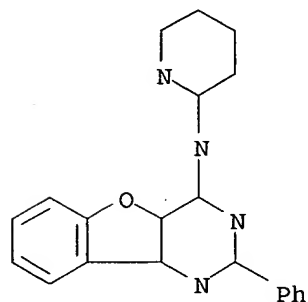




RN 152012-32-3 HCAPLUS  
CN Benzofuro[3,2-d]pyrimidin-4-amine, N-(3-nitrophenyl)-2-phenyl- (9CI) (CA  
INDEX NAME)



RN 152012-33-4 HCAPLUS  
CN Benzofuro[3,2-d]pyrimidin-4-amine, 2-phenyl-N-(2-pyridinyl)- (9CI) (CA  
INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

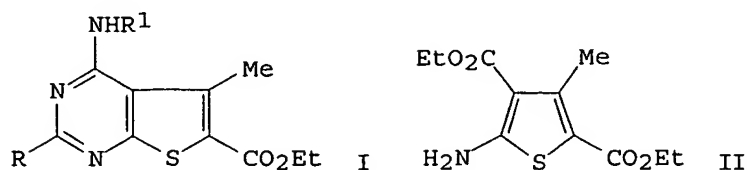
L69 ANSWER 15 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:495464 HCAPLUS

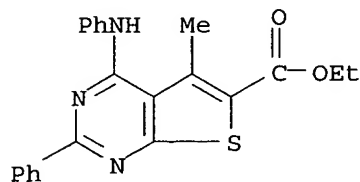
DOCUMENT NUMBER: 119:95464

TITLE: New thieno compounds. Part 14. Synthesis of  
4-amino-substituted thieno[2,3-d]pyrimidine-6-  
carboxylic acid derivatives

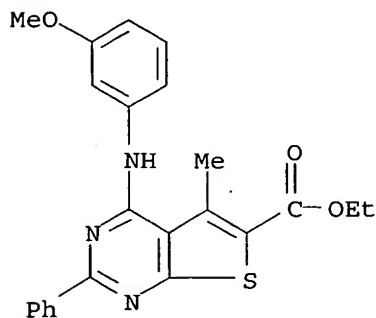
AUTHOR(S): Baumgartner, A.; Pech, R.; Boehm, R.  
 CORPORATE SOURCE: Inst. Pharm. Chem., Martin-Luther-Univ., Germany  
 SOURCE: Pharmazie (1993), 48(3), 192-4  
 CODEN: PHARAT; ISSN: 0031-7144  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 GI



AB The title compds. I (R = H, Me, Ph; R<sup>1</sup> = octyl, 2-furylmethyl, Ph, substituted Ph) were prepared by cyclization of the aminothiophenedicarboxylate II with HCONH<sub>2</sub>, MeCN, or PhCN, followed by chlorination and amination.  
 IT 113417-58-6P 113417-59-7P 148838-72-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 113417-58-6 HCAPLUS  
 CN Thieno[2,3-d]pyrimidine-6-carboxylic acid, 5-methyl-2-phenyl-4-(phenylamino)-, ethyl ester (9CI) (CA INDEX NAME)

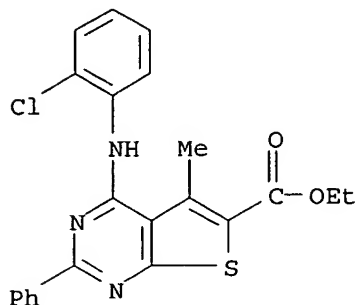


RN 113417-59-7 HCAPLUS  
 CN Thieno[2,3-d]pyrimidine-6-carboxylic acid, 4-[(3-methoxyphenyl)amino]-5-methyl-2-phenyl-, ethyl ester (9CI) (CA INDEX NAME)

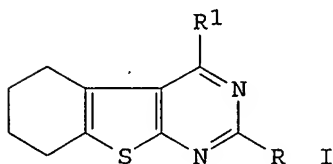


RN 148838-72-6 HCAPLUS  
 CN Thieno[2,3-d]pyrimidine-6-carboxylic acid, 4-[(2-chlorophenyl)amino]-5-

methyl-2-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 16 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1990:118758 HCAPLUS  
DOCUMENT NUMBER: 112:118758  
TITLE: Synthesis of thieno[2,3-d]pyrimidine derivatives and their antifungal activities  
AUTHOR(S): Konno, Shoetsu; Tsunoda, Mamoru; Watanabe, Ryo; Yamanaka, Hiroshi; Fujita, Fumio; Ohtsuka, Norio; Asano, Shoji  
CORPORATE SOURCE: Pharm. Inst., Tohoku Univ., Sendai, 980, Japan  
SOURCE: Yakugaku Zasshi (1989), 109(7), 464-73  
CODEN: YKKZAJ; ISSN: 0031-6903  
DOCUMENT TYPE: Journal  
LANGUAGE: Japanese  
OTHER SOURCE(S): CASREACT 112:118758  
GI



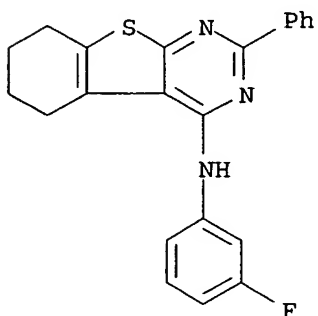
AB 4-Chlorothieno[2,3-d]pyrimidines were prepared by the chlorination of 4-oxo-3,4-di-hydrothieno[2,3-d]pyrimidines with phosphoryl chloride. 4-Oxo-3,4,5,6,7,8-hexahydro[1]benzo- and 4-oxo-6-phenylthienol[2,3-d]pyrimidine were synthesized by the cyclization of 2-acylaminothiophene-3-carboxamide derivs. with base. 2-Methyl-4-oxo-3,4-dihydrothieno[2,3-d]pyrimidine was prepared by the treatment of 2-methyl-4-trichloromethylthieno[2,3-d]pyrimidine with sodium hydroxide in aqueous methanol. A series of 4-alkylamino- and 4-arylaminothieno[2,3-d]pyrimidines e.g. I (R = Me, Ph; R1 = BuNH, PhNH, PhCH2NH, piperidino, morpholino, etc.) were synthesized by the nucleophilic substitution of 4-chlorothieno[2,3-d]pyrimidines with various amines. These compds. were evaluated for antifungal activity against *Piricularia oryzae*. The preventive effects on rice blast, sheath blight, and cucumber powdery mildew were also determined by pot tests.

IT 125661-16-7P 125661-17-8P 125661-18-9P  
RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation)  
(preparation and fungicidal activity of)

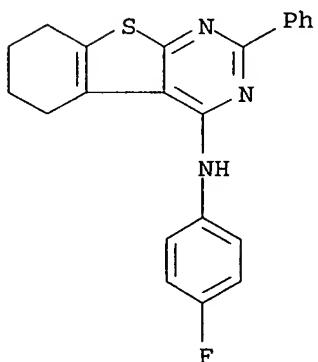
RN 125661-16-7 HCAPLUS

CN [1]Benzothieno[2,3-d]pyrimidin-4-amine, N-(3-fluorophenyl)-5,6,7,8-  
tetrahydro-2-phenyl- (9CI) (CA INDEX NAME)



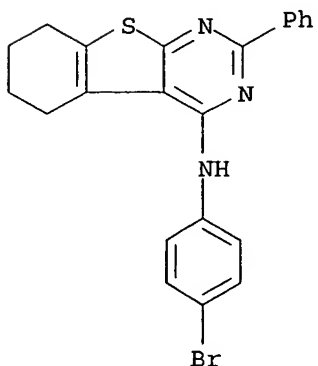
RN 125661-17-8 HCAPLUS

CN [1]Benzothieno[2,3-d]pyrimidin-4-amine, N-(4-fluorophenyl)-5,6,7,8-  
tetrahydro-2-phenyl- (9CI) (CA INDEX NAME)

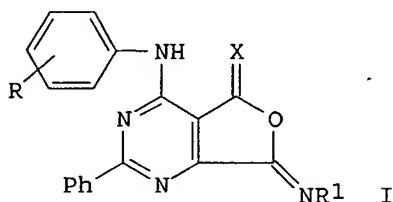


RN 125661-18-9 HCAPLUS

CN [1]Benzothieno[2,3-d]pyrimidin-4-amine, N-(4-bromophenyl)-5,6,7,8-  
tetrahydro-2-phenyl- (9CI) (CA INDEX NAME)



L69 ANSWER 17 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1989:69033 HCAPLUS  
DOCUMENT NUMBER: 110:69033  
TITLE: Synthesis and antineoplastic effects of  
furo[3,4-d]pyrimidine derivatives  
AUTHOR(S): Machon, Zdzislaw; Cieplik, Jerzy  
CORPORATE SOURCE: Dep. Org. Chem., Med. Acad., Wroclaw, 50-137, Pol.  
SOURCE: Polish Journal of Pharmacology and Pharmacy (1988),  
40(2), 201-8  
CODEN: PJPPAA; ISSN: 0301-0244  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 110:69033  
GI



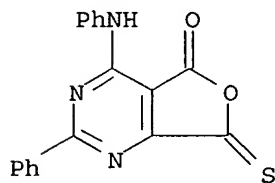
AB Furo[3,4-d]pyrimidine was obtained by the reaction of 2-phenyl-4-phenylamino-6-methyl-5-pyrimidinecarboxylic acid with SOCl<sub>2</sub>. This compound, heated with aliphatic amines, yielded mono- and diamino derivs. (I, R = H or 4-Cl, R<sub>1</sub> = alkyl, substituted Ph, heterocyclic group, etc., X = NR<sub>1</sub>, O, or NC<sub>6</sub>H<sub>4</sub>Cl-p). I (R = 4-Cl, R<sub>1</sub> = 2-furylmethyl, X = 2-furylmethylimino) and I (R = H, R<sub>1</sub> = CH<sub>2</sub>CH<sub>2</sub>OH, X = N:CH<sub>2</sub>CH<sub>2</sub>OH) were the only compds. to inhibit the development of lymphatic leukemias L-1210 and P-388.

IT 104824-50-2 104824-51-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
(aminolysis of)

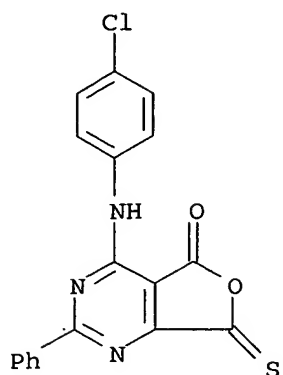
RN 104824-50-2 HCAPLUS

CN Furo[3,4-d]pyrimidin-5(7H)-one, 2-phenyl-4-(phenylamino)-7-thioxo- (9CI)  
(CA INDEX NAME)



RN 104824-51-3 HCAPLUS

CN Furo[3,4-d]pyrimidin-5(7H)-one, 4-[(4-chlorophenyl)amino]-2-phenyl-7-thioxo- (9CI) (CA INDEX NAME)

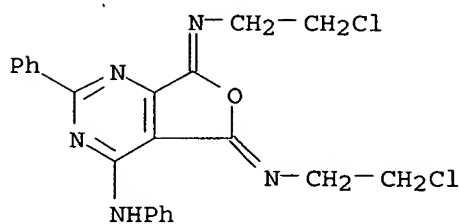


IT 118694-01-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and amine substitution of)

RN 118694-01-2 HCAPLUS

CN Furo[3,4-d]pyrimidin-4-amine, 5,7-bis[(2-chloroethyl)imino]-5,7-dihydro-N,2-diphenyl- (9CI) (CA INDEX NAME)



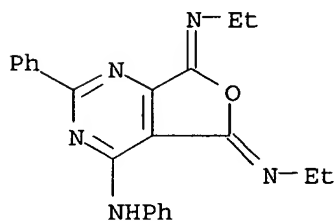
IT 104824-55-7P 118693-89-3P 118693-90-6P

118693-91-7P 118720-28-8P

RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation)  
(preparation and neoplasm inhibiting activity of)

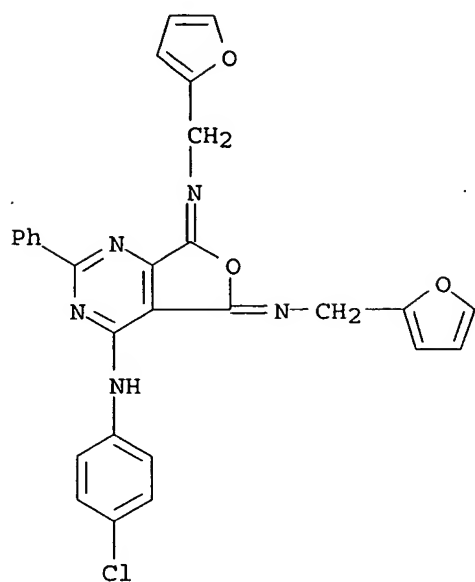
RN 104824-55-7 HCAPLUS

CN Furo[3,4-d]pyrimidin-4-amine, 5,7-bis(ethylimino)-5,7-dihydro-N,2-diphenyl- (9CI) (CA INDEX NAME)

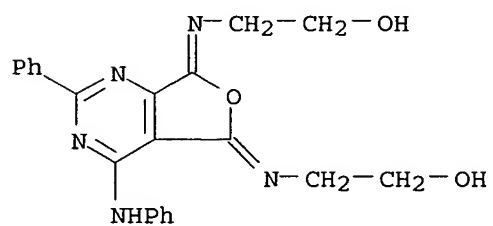


RN 118693-89-3 HCAPLUS

CN Furo[3,4-d]pyrimidin-4-amine, N-(4-chlorophenyl)-5,7-bis[(2-furanylmethyl)imino]-5,7-dihydro-2-phenyl- (9CI) (CA INDEX NAME)

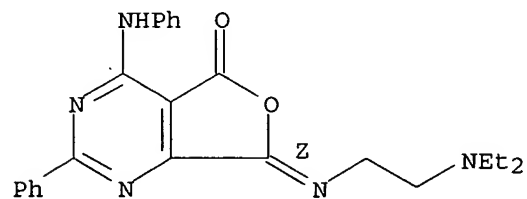


RN 118693-90-6 HCAPLUS  
 CN Ethanol, 2,2'-[[2-phenyl-4-(phenylamino)furo[3,4-d]pyrimidine-5,7-diylidene]dinitrilo]bis- (9CI) (CA INDEX NAME)

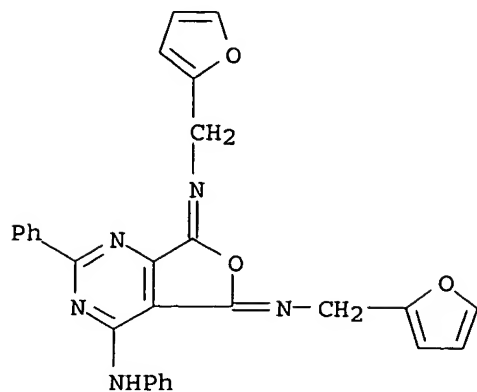


RN 118693-91-7 HCAPLUS  
 CN Furo[3,4-d]pyrimidin-5(7H)-one, 7-[[2-(diethylamino)ethyl]imino]-2-phenyl-4-(phenylamino)-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 118720-28-8 HCAPLUS  
 CN Furo[3,4-d]pyrimidin-4-amine, 5,7-bis[(2-furanylmethyl)imino]-5,7-dihydro-N,2-diphenyl- (9CI) (CA INDEX NAME)

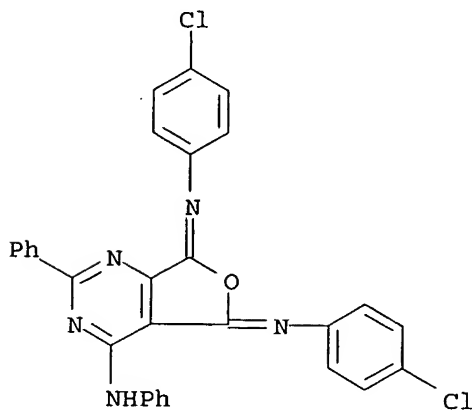


IT 104824-54-6P 118693-92-8P 118693-93-9P  
 118693-94-0P 118693-95-1P 118693-96-2P  
 118693-97-3P 118693-98-4P 118693-99-5P  
 118694-00-1P 118720-29-9P

RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological study, unclassified); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (preparation of, as neoplasm inhibitor)

RN 104824-54-6 HCAPLUS

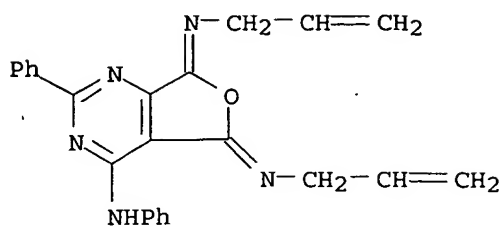
CN Furo[3,4-d]pyrimidin-4-amine, 5,7-bis[(4-chlorophenyl)imino]-5,7-dihydro-  
 N,2-diphenyl- (9CI) (CA INDEX NAME)



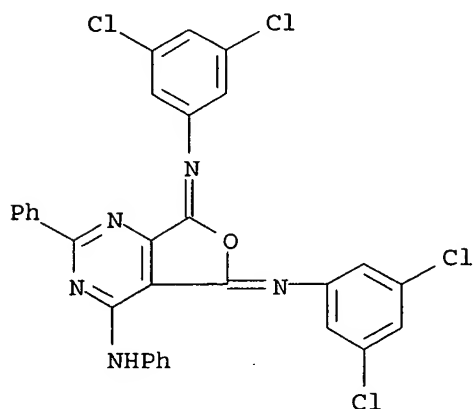
RN 118693-92-8 HCAPLUS

CN Furo[3,4-d]pyrimidin-4-amine, 5,7-dihydro-N,2-diphenyl-5,7-bis(2-  
 propenylimino)- (9CI) (CA INDEX NAME)

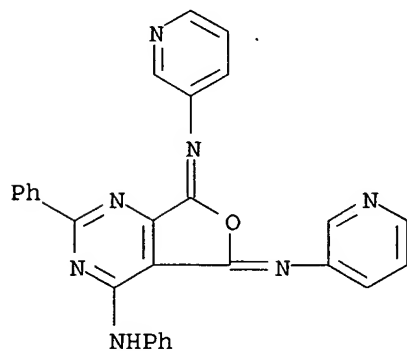




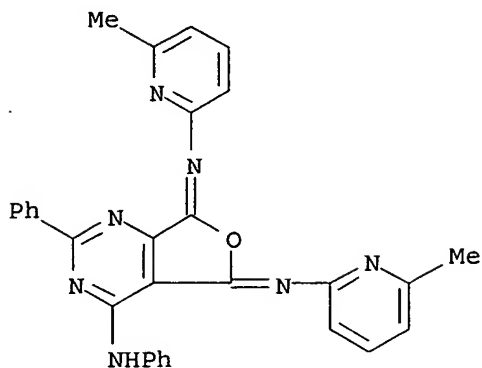
RN 118693-93-9 HCAPLUS  
 CN Furo[3,4-d]pyrimidin-4-amine, 5,7-bis[(3,5-dichlorophenyl)imino]-5,7-dihydro-N,2-diphenyl- (9CI) (CA INDEX NAME)



RN 118693-94-0 HCAPLUS  
 CN Furo[3,4-d]pyrimidin-4-amine, 5,7-dihydro-N,2-diphenyl-5,7-bis(3-pyridinylimino)- (9CI) (CA INDEX NAME)



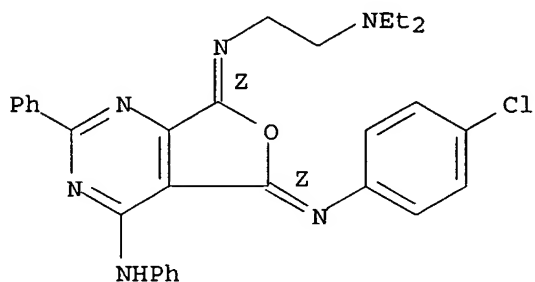
RN 118693-95-1 HCAPLUS  
 CN Furo[3,4-d]pyrimidin-4-amine, 5,7-dihydro-5,7-bis[(6-methyl-2-pyridinyl)imino]-N,2-diphenyl- (9CI) (CA INDEX NAME)



RN 118693-96-2 HCAPLUS

CN 1,2-Ethanediamine, N' - [5 - [(4-chlorophenyl)imino] - 2-phenyl-4-(phenylamino)furo[3,4-d]pyrimidin-7(5H)-ylidene] - N,N-diethyl-, (Z,Z) - (9CI) (CA INDEX NAME)

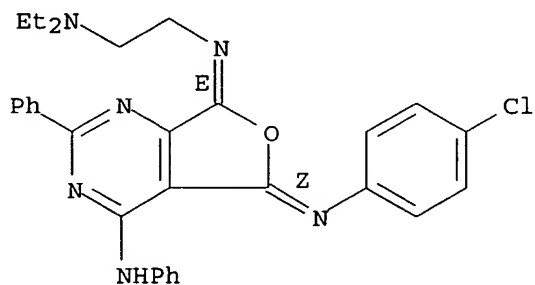
Double bond geometry as shown.



RN 118693-97-3 HCAPLUS

CN 1,2-Ethanediamine, N' - [5 - [(4-chlorophenyl)imino] - 2-phenyl-4-(phenylamino)furo[3,4-d]pyrimidin-7(5H)-ylidene] - N,N-diethyl-, (Z,E) - (9CI) (CA INDEX NAME)

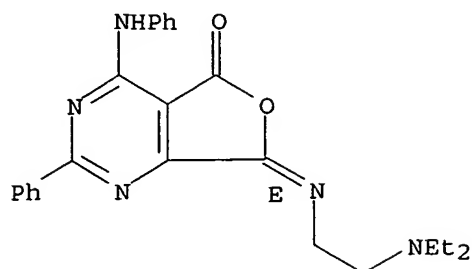
Double bond geometry as shown.



RN 118693-98-4 HCAPLUS

CN Furo[3,4-d]pyrimidin-5(7H)-one, 7 - [[2 - (diethylamino)ethyl]imino] - 2-phenyl-4-(phenylamino)-, (E) - (9CI) (CA INDEX NAME)

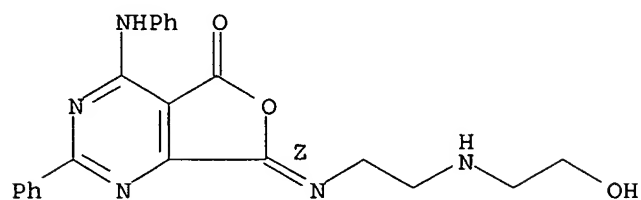
Double bond geometry as shown.



RN 118693-99-5 HCAPLUS

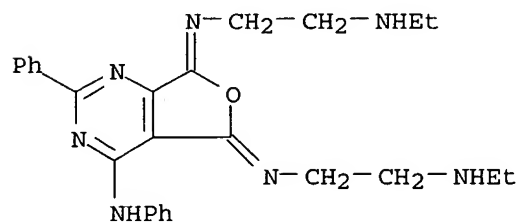
CN Furo[3,4-d]pyrimidin-5(7H)-one, 7-[[2-[(2-hydroxyethyl)amino]ethyl]imino]-2-phenyl-4-(phenylamino)-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



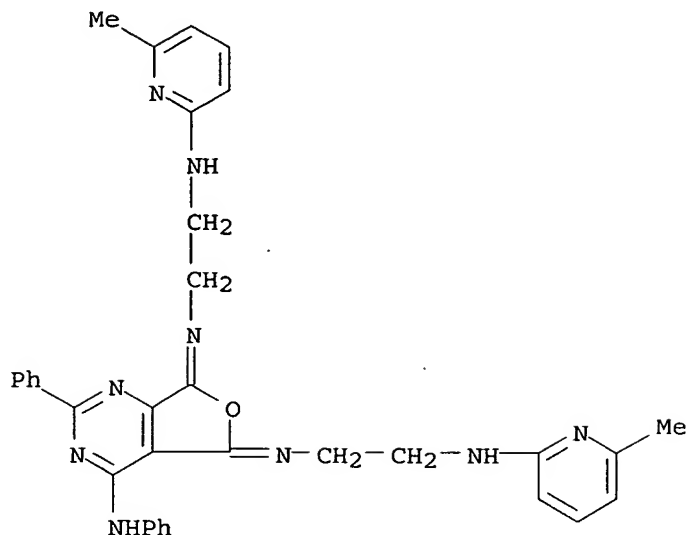
RN 118694-00-1 HCAPLUS

CN 1,2-Ethanediamine, N,N''-[2-phenyl-4-(phenylamino)furo[3,4-d]pyrimidine-5,7-diylidene]bis[N'-ethyl- (9CI) (CA INDEX NAME)



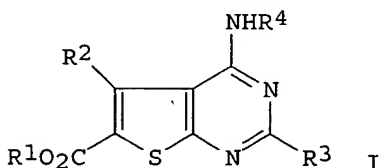
RN 118720-29-9 HCAPLUS

CN 1,2-Ethanediamine, N,N''-[2-phenyl-4-(phenylamino)furo[3,4-d]pyrimidine-5,7-diylidene]bis[N'-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



L69 ANSWER 18 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1988:131852 HCAPLUS  
 DOCUMENT NUMBER: 108:131852  
 TITLE: Preparation of 4-aminothieno[2,3-d]pyrimidine-6-carboxylates as drugs and drug intermediates  
 INVENTOR(S): Boehm, Ralf; Pech, Reinhard; Baumgartner, Angela; Lohmann, Dieter; Laban, Gunter  
 PATENT ASSIGNEE(S): Martin-Luther-Universitaet Halle-Wittenberg, Ger. Dem. Rep.  
 SOURCE: Ger. (East), 4 pp.  
 CODEN: GEXXA8  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 248593	A1	19870812	DD 1985-272506	19850111
PRIORITY APPLN. INFO.:			DD 1985-272506	19850111
OTHER SOURCE(S):	CASREACT 108:131852			
GI				



AB The title compds. [I; R1, R2 = alkyl; R3 = H, alkyl, Ph; R4 = alkyl, (substituted) Ph, aralkyl] were prepared as potential drugs (no data) and intermediates. Et 5-methyl-3,4-dihydro-4-oxothieno[2,3-d]pyrimidine-6-carboxylate and POCl3 were refluxed for 14 h in dimethylaniline to give

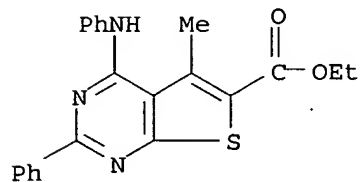
75% Et 4-chloro-5-methylthieno[2,3-d]pyrimidine-6-carboxylate. The latter was refluxed with PhNH<sub>2</sub> in EtOH to give 60% I (R<sub>1</sub> = Et, R<sub>2</sub> = Me, R<sub>3</sub> = H, R<sub>4</sub> = Ph).

IT 113417-58-6P 113417-59-7P 113417-60-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as drug and drug intermediate)

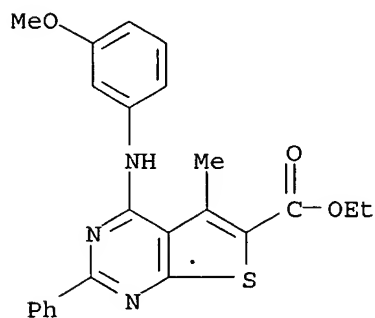
RN 113417-58-6 HCAPLUS

CN Thieno[2,3-d]pyrimidine-6-carboxylic acid, 5-methyl-2-phenyl-4-(phenylamino)-, ethyl ester (9CI) (CA INDEX NAME)



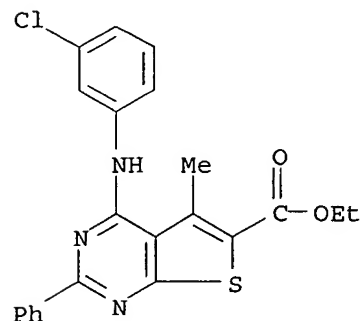
RN 113417-59-7 HCAPLUS

CN Thieno[2,3-d]pyrimidine-6-carboxylic acid, 4-[(3-methoxyphenyl)amino]-5-methyl-2-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 113417-60-0 HCAPLUS

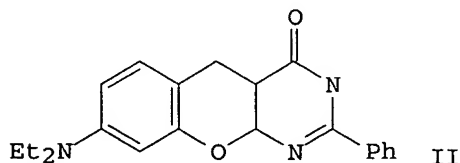
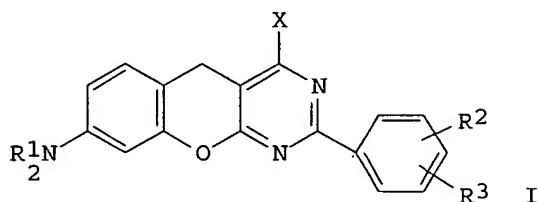
CN Thieno[2,3-d]pyrimidine-6-carboxylic acid, 4-[(3-chlorophenyl)amino]-5-methyl-2-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 19 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1988:122036 HCAPLUS

DOCUMENT NUMBER: 108:122036  
TITLE: Electrochromic pyrimidine derivatives for thermal or pressure-sensitive recording materials  
INVENTOR(S): Tada, Shoji  
PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62249987	A2	19871030	JP 1986-93267	19860424
JP 06076560	B4	19940928		
PRIORITY APPLN. INFO.: GI			JP 1986-93267	19860424



AB The title pyrimidine derivs. I [R1 = Me, Et; R2, R3 = H, Cl, MeO, EtO, Me, NR4R5; R4, R5 = Me, Et, cyanoethyl, Cl(CH2)2, C3-4 alkoxyalkyl; X = Cl, OY, SZ, NW1W2; Y = Me, Et, allyl, PhCH2, Ph, 4,4'-C6H4CMe2C6H4, 4,4'-C6H4SO2C6H4; Z = HO(CH2)2, Ph; W1, W2 = H, Bu, PhCH2, MeO(CH2)3, EtO(CH2)3, Ph, W1 and W2 may form (CH2)5, (CH2)4, C2H4OC2H4 groups; W1 and W2 are not H simultaneously] is used for recording materials. The pyrimidine derivs. give H2O- and light-resistant recording images with a quick response. Thus, treating pyrimidone derivative II with phosphorus oxychloride in PhCl for 3 h at 90-110° gave I (R1 = Et, R2 = R3 = H, X = Cl) which gave light-resistant orange-red images.

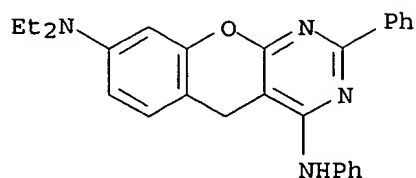
IT 113398-66-6

RL: USES (Uses)

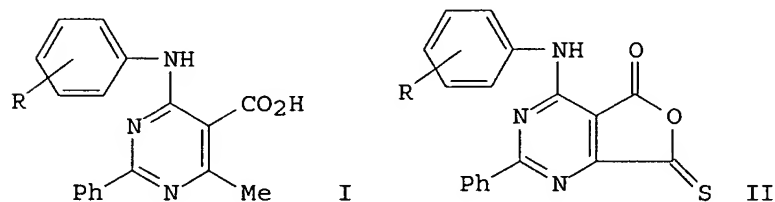
(electrochromic recording materials from, water- and light-resistant)

RN 113398-66-6 HCAPLUS

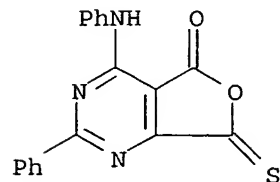
CN 5H-[1]Benzopyrano[2,3-d]pyrimidine-4,8-diamine, N8,N8-diethyl-N4,2-diphenyl- (9CI) (CA INDEX NAME)



L69 ANSWER 20 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1986:572394 HCAPLUS  
 DOCUMENT NUMBER: 105:172394  
 TITLE: Synthesis of furo[3,4-d]pyrimidine derivatives via reaction of 4-methylpyrimidine-5-carboxylic acids with thionyl chloride  
 AUTHOR(S): Machon, Z.; Cieplik, J.  
 CORPORATE SOURCE: Dep. Org. Chem., Med. Acad., Wroclaw, Pol.  
 SOURCE: Synthesis (1986), (2), 142-4  
 CODEN: SYNTBF; ISSN: 0039-7881  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 105:172394  
 GI

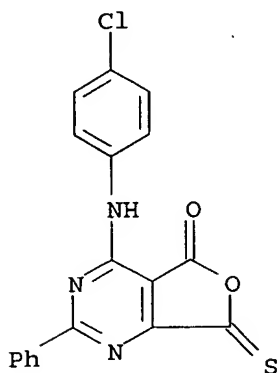


AB Cyclization of pyrimidines I (R = H, o- and p-Cl, p-EtO) with SOCl2 in boiling benzene gave 57-73% furo[3,4-d]pyrimidines II.  
 IT 104824-50-2P 104824-51-3P 104824-52-4P  
 104824-53-5P 104824-54-6P 104824-55-7P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and spectra of)  
 RN 104824-50-2 HCAPLUS  
 CN Furo[3,4-d]pyrimidin-5(7H)-one, 2-phenyl-4-(phenylamino)-7-thioxo- (9CI) (CA INDEX NAME)



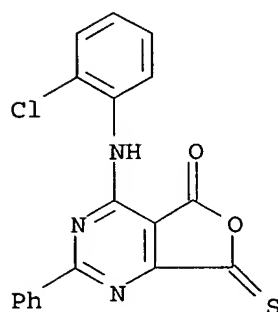
RN 104824-51-3 HCAPLUS  
 CN Furo[3,4-d]pyrimidin-5(7H)-one, 4-[(4-chlorophenyl)amino]-2-phenyl-7-

thioxo- (9CI) (CA INDEX NAME)



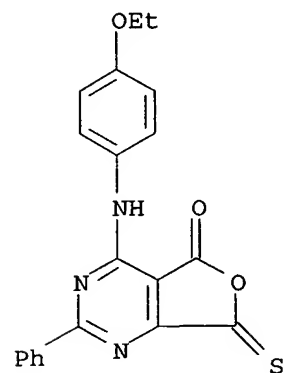
RN 104824-52-4 HCAPLUS

CN Furo[3,4-d]pyrimidin-5(7H)-one, 4-[(2-chlorophenyl)amino]-2-phenyl-7-thioxo- (9CI) (CA INDEX NAME)



RN 104824-53-5 HCAPLUS

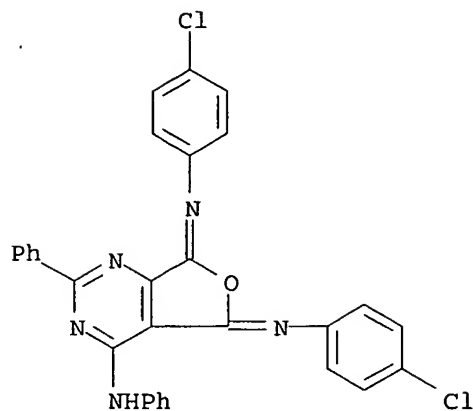
CN Furo[3,4-d]pyrimidin-5(7H)-one, 4-[(4-ethoxyphenyl)amino]-2-phenyl-7-thioxo- (9CI) (CA INDEX NAME)



RN 104824-54-6 HCAPLUS

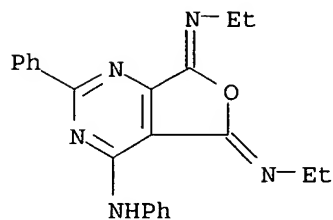
CN Furo[3,4-d]pyrimidin-4-amine, 5,7-bis[(4-chlorophenyl)imino]-5,7-dihydro-N,2-diphenyl- (9CI) (CA INDEX NAME)





RN 104824-55-7 HCAPLUS

CN Furo[3,4-d]pyrimidin-4-amine, 5,7-bis(4-chlorophenyl)-5,7-dihydro-N,2-diphenyl-  
(9CI) (CA INDEX NAME)



L69 ANSWER 21 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1986:442740 HCAPLUS

DOCUMENT NUMBER: 105:42740

TITLE: Chemistry of metallo-ketene-S,N-acetals. New  
synthesis of azacycloalka[2,3-d]pyrimidines

AUTHOR(S): Takahata, Hiroki; Suzuki, Toshiaki; Yamazaki, Takao  
CORPORATE SOURCE: Fac. Pharm. Sci., Toyama Med. Pharm. Univ., Toyama,  
930-1, Japan

SOURCE: Heterocycles (1985), 23(9), 2213-15

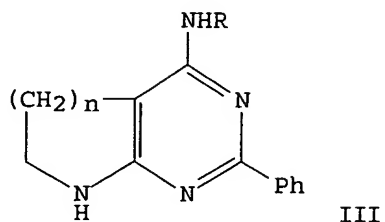
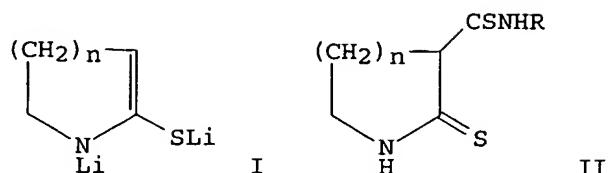
CODEN: HTCYAM; ISSN: 0385-5414

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 105:42740

GI

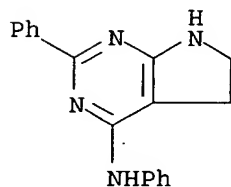


AB Title acetals, I ( $n = 1,2$ ), generated from thiolactams by treatment with BuLi, react with RNCS ( $R = \text{Ph}, 4\text{-ClC}_6\text{H}_4, 1\text{-naphthyl}$ ) to give dithio amides II. Bismethylation of the dithioamides followed by condensation with benzamidine gave azacycloalka[2,3-d]pyrimidines III.

IT 103184-72-1P 103184-73-2P 103184-74-3P  
103184-75-4P 103184-76-5P 103184-77-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

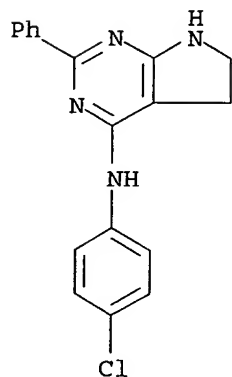
RN 103184-72-1 HCAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5,6-dihydro-N,2-diphenyl- (9CI) (CA INDEX NAME)



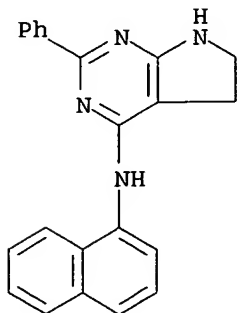
RN 103184-73-2 HCAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, N-(4-chlorophenyl)-5,6-dihydro-2-phenyl- (9CI) (CA INDEX NAME)



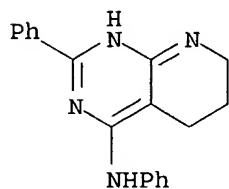
RN 103184-74-3 HCAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5,6-dihydro-N-1-naphthalenyl-2-phenyl-  
(9CI) (CA INDEX NAME)



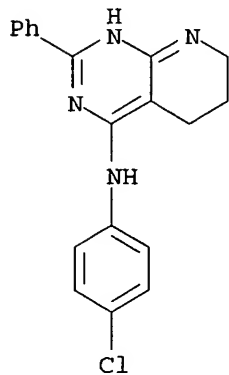
RN 103184-75-4 HCAPLUS

CN Pyrido[2,3-d]pyrimidin-4-amine, 1,5,6,7-tetrahydro-N,2-diphenyl- (9CI)  
(CA INDEX NAME)



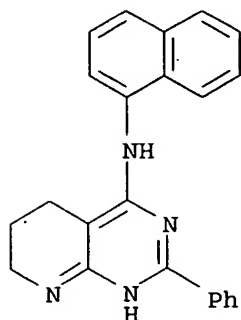
RN 103184-76-5 HCAPLUS

CN Pyrido[2,3-d]pyrimidin-4-amine, N-(4-chlorophenyl)-1,5,6,7-tetrahydro-2-phenyl- (9CI) (CA INDEX NAME)

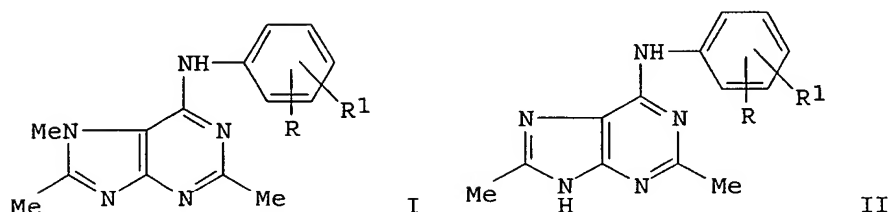


RN 103184-77-6 HCAPLUS

CN Pyrido[2,3-d]pyrimidin-4-amine, 1,5,6,7-tetrahydro-N-1-naphthalenyl-2-phenyl- (9CI) (CA INDEX NAME)



L69 ANSWER 22 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1985:422351 HCAPLUS  
DOCUMENT NUMBER: 103:22351  
TITLE: Phosphorus pentoxide in organic synthesis. XV. A new synthesis of adenines from 4-acylamino-1H-imidazole-5-carbonitriles  
AUTHOR(S): Nielsen, Flemming E.; Nielsen, Kurt E.; Pedersen, Erik B.  
CORPORATE SOURCE: Dep. Chem., Odense Univ., Odense, DK-5230, Den.  
SOURCE: Chemica Scripta (1984), 24(4-5), 208-23  
CODEN: CSRPB9; ISSN: 0004-2056  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 103:22351  
GI



AB N-Aryl-2,7,8-trimethyl-7H-purin-6-amines I (R = H, 3-Me, 4-Bu, 3-CF<sub>3</sub>, 2-F, 4-Cl, R<sub>1</sub> = H; R = 3-Me, R<sub>1</sub> = 5-Me; R = 2-Cl, R<sub>1</sub> = 4-Me) were synthesized in 46-68% yield by heating 4-acetylamino-1,2-dimethyl-1H-imidazole-5-carbonitrile in a mixture of P<sub>2</sub>O<sub>5</sub>, Bu<sub>3</sub>N, and RR<sub>1</sub>C<sub>6</sub>H<sub>3</sub>NH<sub>2</sub>.HCl at 180°, while the demethylated derivs. II were similarly obtained in 16-95% yield at 240°. Analogous reactions at 180° and 240° of 4-benzoylamino-1,2-dimethyl-1H-imidazole-5-carbonitrile (III) with PhNH<sub>2</sub>.HCl, P<sub>2</sub>O<sub>5</sub>, and N,N-dimethylcyclohexylamine resulted in 6 different compds., i.e. 7-methyl, 9-methyl, and N-demethylated iminopurines along with the corresponding aminopurines. In the reaction of III with PrNH<sub>2</sub>.HCl, P<sub>2</sub>O<sub>5</sub>, and N,N-dimethylcyclohexylamine only the 2 isomeric dealkylated products could be isolated. UV, IR, MS, <sup>1</sup>H NMR and <sup>13</sup>C NMR spectra were determined and discussed for the majority of the compds. and they unambiguously confirmed the assigned structures. Some of the products have pesticidal activity.

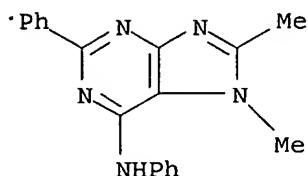
IT 96883-38-4P

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation)  
(preparation and fungicidal activity of)

RN 96883-38-4 HCAPLUS

CN 7H-Purin-6-amine, 7,8-dimethyl-N,2-diphenyl- (9CI) (CA INDEX NAME)

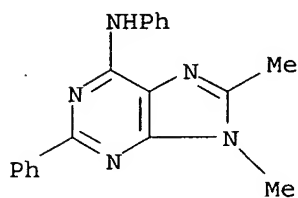


IT 96883-40-8P 96883-41-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

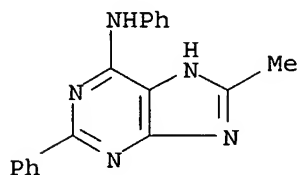
RN 96883-40-8 HCAPLUS

CN 9H-Purin-6-amine, 8,9-dimethyl-N,2-diphenyl- (9CI) (CA INDEX NAME)



RN 96883-41-9 HCAPLUS

CN 1H-Purin-6-amine, 8-methyl-N,2-diphenyl- (9CI) (CA INDEX NAME)



L69 ANSWER 23 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1983:215558 HCAPLUS

DOCUMENT NUMBER: 98:215558

TITLE: Activated lactams: new syntheses of  
azacycloalka[2,3-d]pyrimidine and -[2,3-c]pyrazole  
derivatives

AUTHOR(S): Takahata, Hiroki; Nakajima, Tomoko; Yamazaki, Takao  
CORPORATE SOURCE: Fac. Pharm. Sci., Toyama Med. Pharm. Univ., Toyama,  
930-01, Japan

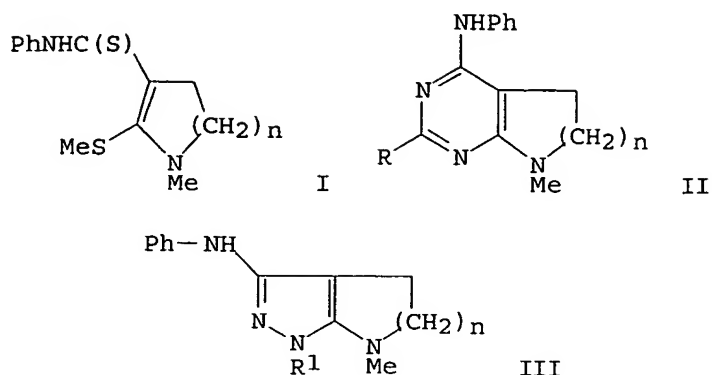
SOURCE: Synthesis (1983), (3), 226-8  
CODEN: SYNTBF; ISSN: 0039-7881

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 98:215558

GI

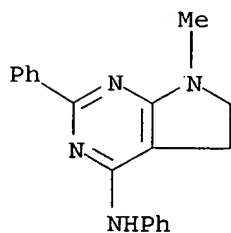


AB Cyclization of enamines I ( $n = 1, 2$ ) with amidines,  $RC(:NH)NH_2$ , ( $R = NH_2$ , Me, Ph) and hydrazines,  $R_1NHNH_2$  ( $R_1 = H, Ph$ ), gave 53-71% II and 22-73% III, resp.

IT 85936-65-8P 85936-68-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

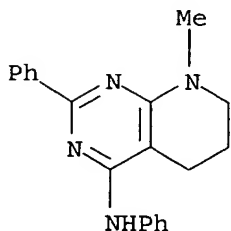
RN 85936-65-8 HCAPLUS

CN 5H-Pyrrolo[2,3-d]pyrimidin-4-amine, 6,7-dihydro-7-methyl-N,2-diphenyl-  
(9CI) (CA INDEX NAME)



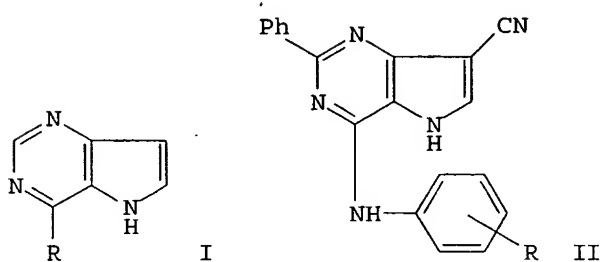
RN 85936-68-1 HCAPLUS

CN Pyrido[2,3-d]pyrimidin-4-amine, 5,6,7,8-tetrahydro-8-methyl-N,2-diphenyl-  
(9CI) (CA INDEX NAME)



L69 ANSWER 24 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1983:107247 HCAPLUS

DOCUMENT NUMBER: 98:107247  
TITLE: Pyrrolo[3,2-d]pyrimidine derivatives. IV. Synthesis, antibacterial and antitumor activity of 2,4,7-substituted pyrrolo[3,2-d]pyrimidines  
AUTHOR(S): Sizova, O. S.; Britikova, N. E.; Novitskii, K. Yu.; Shcherbakova, L. I.; Pershin, G. N.; Kravchenko, A. I.; Chernov, V. A.  
CORPORATE SOURCE: Vses. Nauchno-Issled. Khim.-Farm. Inst., Moscow, USSR  
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1982), 16(11), 1338-43  
CODEN: KHFZAN; ISSN: 0023-1134  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 98:107247  
GI



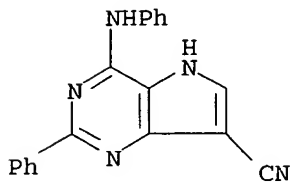
AB Several title compds., e.g., I (R = BuNH, HOCH<sub>2</sub>CH<sub>2</sub>NH, 4-MeOC<sub>6</sub>H<sub>4</sub>NH, etc.) and II (R = H, CO<sub>2</sub>Et), were prepared, in most cases by aminolysis of the Cl analogs. The compds. had antibacterial activity and inhibited the growth of sarcoma 180 by 30-50%.

IT 84905-67-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation and biol. activity of)

RN 84905-67-9 HCAPLUS

CN 5H-Pyrrolo[3,2-d]pyrimidine-7-carbonitrile, 2-phenyl-4-(phenylamino)-(9CI) (CA INDEX NAME)

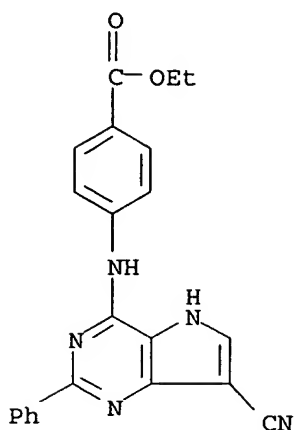


IT 84905-78-2P

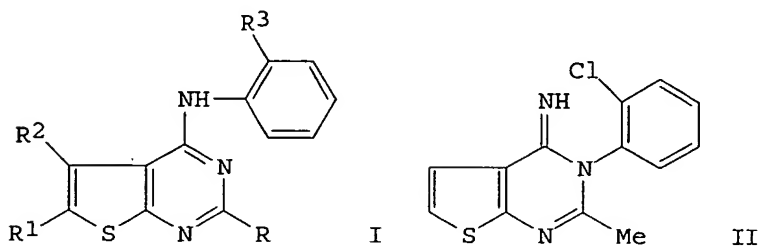
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 84905-78-2 HCAPLUS

CN Benzoic acid, 4-[(7-cyano-2-phenyl-5H-pyrrolo[3,2-d]pyrimidin-4-yl)amino]-, ethyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 25 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1982:122739 HCAPLUS  
DOCUMENT NUMBER: 96:122739  
TITLE: Phosphoramides. XVIII. A new synthesis of  
N-arylthieno[2,3-d]pyrimidin-4-amines  
AUTHOR(S): Nielsen, Knud Erik; Pedersen, Erik B.  
CORPORATE SOURCE: Dep. Chem., Odense Univ., Odense, DK-5230, Den.  
SOURCE: Chemica Scripta (1981), 18(5), 245-7  
CODEN: CSRPB9; ISSN: 0004-2056  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 96:122739  
GI



AB The arylthieno[2,3-d]pyrimidinamines I [R = Me, Ph; R1 = R2 = H, R1R2 = (CH2)4; R3 = H, Me, Cl] were prepared in 11-73% yield by heating 2-acylamino-3-thiophenecarbonitriles in a reagent mixture of P2O5, arylamine hydrochloride, and N,N-dimethylcyclohexylamine. Using 2-ClC6H4NH2·HCl the intermediate thienopyrimidinimine II could be isolated. N-Alkylthieno[2,3-d]pyrimidin-4-amines could not be synthesized by using alkylamine hydrochlorides instead of arylamine hydrochlorides in the reagent mixture. Only dealkylated products could be isolated. I (R = Me; R1 = R2 = H; R3 = Me, Cl) and 2-acetylthieno[2,3-d]pyrimidin-4-amine showed pesticide activities.

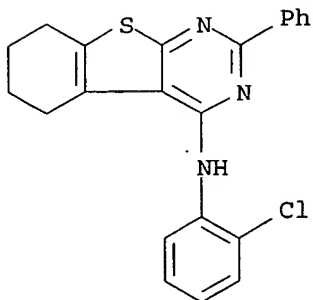
IT 81102-96-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)



RN 81102-96-7 HCAPLUS

CN [1]Benzothieno[2,3-d]pyrimidin-4-amine, N-(2-chlorophenyl)-5,6,7,8-tetrahydro-2-phenyl- (9CI) (CA INDEX NAME)



L69 ANSWER 26 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:548153 HCAPLUS

DOCUMENT NUMBER: 89:148153

TITLE: Process for the manufacture of polycyclic compounds

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Brit., 20 pp.

CODEN: BRXXAA

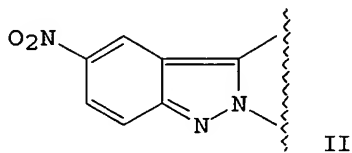
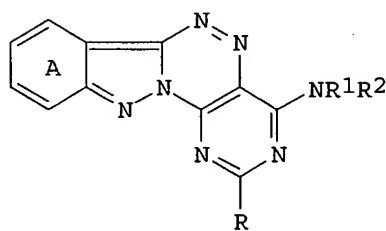
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1502912	A	19780308	GB 1975-19672	19750509
PRIORITY APPLN. INFO.: GI			IN 1974-184	A 19740510



AB The preparation is described of title compds. I (R = H, optionally substituted hydrocarbon radical; R1, R2 = H, alkyl, aryl, aralkyl, cycloalkyl; NR1R2 = a ring; ring A is optionally substituted), useful as dyes for organic material including polyester, polyamide, and polyacrylonitrile fibers. Thus, II (R = Ph, R1 = R2 = Me) [58515-05-2], prepared from 2-phenyl-4,6-dichloropyrimidine [3740-92-9] by sequential treatment with Me2NH [124-40-3] and diazotized 3-amino-5-nitroindazole [41339-17-7], dyed polyester fibers from an aqueous dispersion sublimation- and lightfast brilliant yellow.

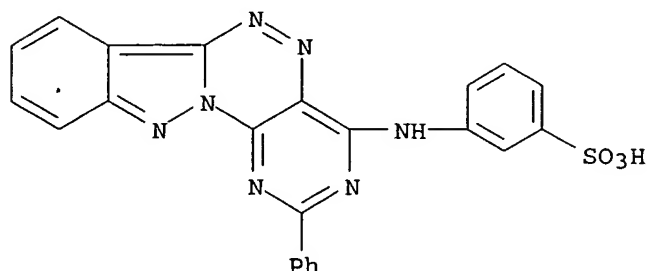
IT 67834-60-0

RL: USES (Uses)

(dye, for polyamide and wool, preparation of)

RN 67834-60-0 HCAPLUS

CN Benzenesulfonic acid, 3-[(2-phenylpyrimido[4',5':5,6][1,2,4]triazino[4,3-b]indazol-4-yl)amino]- (9CI) (CA INDEX NAME)



L69 ANSWER 27 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1976:593039 HCAPLUS

DOCUMENT NUMBER: 85:193039

TITLE: 2-Substituted adenosine derivatives

INVENTOR(S): Marumoto, Ryuji; Imai, Kinichi; Yoshioka, Yoshio; Honjo, Mikio

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: Jpn. Tokkyo Koho, 9 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

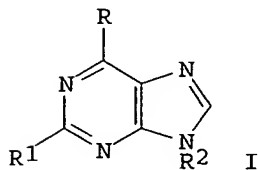
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50034039	B4	19751105	JP 1970-124077	19701228
DK 135130	B	19770307	DK 1971-6213	19711220
CA 965411	A1	19750401	CA 1971-130670	19711221
HU 164526	P	19740228	HU 1971-TA1164	19711223
NL 7117845	A	19720630	NL 1971-17845	19711224
SE 391337	B	19770214	SE 1971-16692	19711227
PRIORITY APPLN. INFO.:			JP 1970-124077	A 19701228

GI



AB I (R1 = aryl, aralkyl, heterocyclyl with or without halo, NO2, alkyl, or alkoxy group; R2 = ribosyl, possibly protected; R = halo, alkylthio) were treated with R3NH2 to give I (R = NHR3, R2 = ribosyl) (II). II are coronary vasodilators. Thus, 3.2 g 2-phenylinosine in pyridine was

acetylated with Ac<sub>2</sub>O to give 3.625 g 2',3',5'-tri-O-acetyl derivative, which (6 g) was refluxed with SOCl<sub>2</sub> in CHCl<sub>3</sub>-DMF 7 hr and the product treated with MeOH-NH<sub>3</sub> to give 3.5 g 2-phenyl-6-chloronebularine (II). III (2 g) was autoclaved with 20% MeOH-NH<sub>3</sub> 5 hr at 150° to give 1.6 g 2-phenyladenosine. Similarly prepared were 2-(2-furyl)-6-chloronebularine, 2-(2-furyl)-6-naphthylaminonebularine, 2-(p-methoxyphenyl)adenosine and 2-(p-methoxyphenyl)-6-ethylthionebularine.

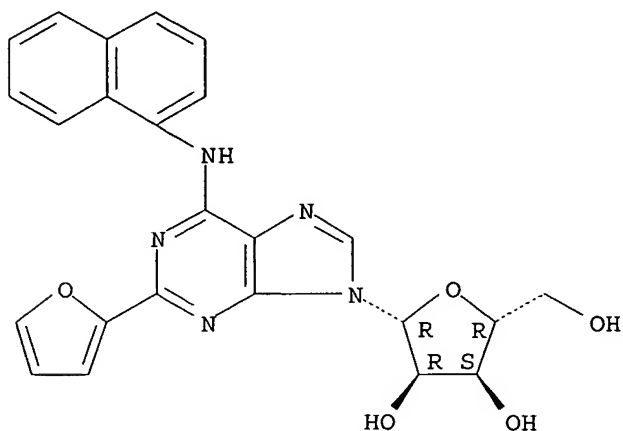
IT 59791-57-0P 59791-58-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 59791-57-0 HCAPLUS

CN Adenosine, 2-(2-furanyl)-N-1-naphthalenyl- (9CI) (CA INDEX NAME)

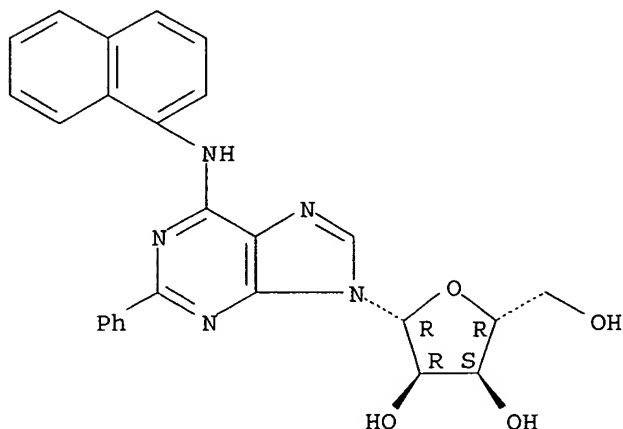
Absolute stereochemistry.



RN 59791-58-1 HCAPLUS

CN Adenosine, N-1-naphthalenyl-2-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



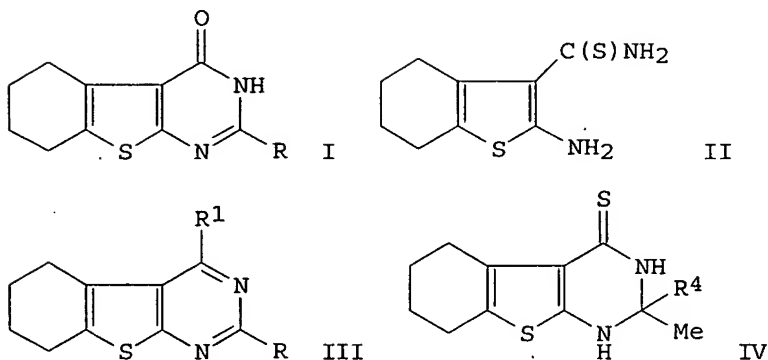
L69 ANSWER 28 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1976:543058 HCAPLUS

DOCUMENT NUMBER: 85:143058

TITLE: Heterocyclic compounds. V. 2,4-Disubstituted

thienopyrimidones  
AUTHOR(S): Manhas, M. S.; Amin, S. G.; Dayal, B.  
CORPORATE SOURCE: Dep. Chem. Chem. Eng., Stevens Inst. Technol.,  
Hoboken, NJ, USA  
SOURCE: Journal of Heterocyclic Chemistry (1976), 13(3), 633-8  
CODEN: JHTCAD; ISSN: 0022-152X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 85:143058  
GI



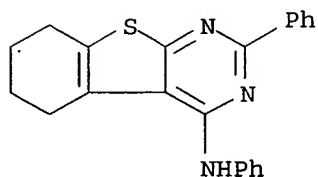
AB Thienopyrimidones I (R = Ph, 2-, 4-MeC<sub>6</sub>H<sub>4</sub>, 4-MeOC<sub>6</sub>H<sub>4</sub>), obtained by the condensation of benzothiophene II with RCHO in the presence of catalytic amts. of HCl, were refluxed with POCl<sub>3</sub> to give chlorobenzothienopyrimidines III (R<sub>1</sub> = Cl). Refluxing III (R<sub>1</sub> = Cl) with R<sub>2</sub>R<sub>3</sub>NH (R<sub>2</sub> = H, R<sub>3</sub> = Me, Ph; R<sub>2</sub> = R<sub>3</sub> = Me, Bu; R<sub>2</sub> = Et, R<sub>3</sub> = Ph; R<sub>2</sub>R<sub>3</sub>N = morpholino, 4-methylpiperazino) gave III (R<sub>1</sub> = NR<sub>2</sub>R<sub>3</sub>). The cycloaddn. of II with MeCOR<sub>4</sub> (R<sub>4</sub> = Me, Et) gave IV. III (R = Ph, R<sub>1</sub> = morpholino) (V) had slight antiinflammatory activity based on the carrageenin induced edema test in mice. V and III (R = Ph, R<sub>1</sub> = NBu<sub>2</sub>, 4-methylpiperazino) showed weak anorexogenic activity.

IT 60557-11-1P 60557-12-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

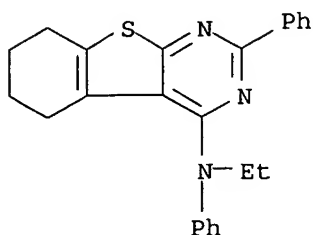
RN 60557-11-1 HCAPLUS

CN [1]Benzothieno[2,3-d]pyrimidin-4-amine, 5,6,7,8-tetrahydro-N,2-diphenyl-  
(9CI) (CA INDEX NAME)

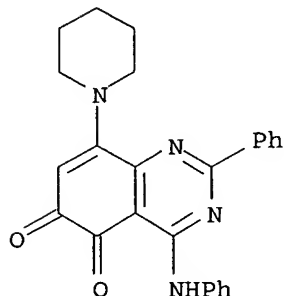


RN 60557-12-2 HCAPLUS

CN [1]Benzothieno[2,3-d]pyrimidin-4-amine, N-ethyl-5,6,7,8-tetrahydro-N,2-diphenyl- (9CI) (CA INDEX NAME)

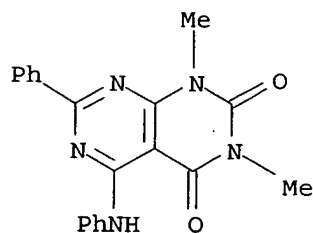


L69 ANSWER 29 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1974:403870 HCAPLUS  
 DOCUMENT NUMBER: 81:3870  
 TITLE: Heterocyclic quinones. XXII. Synthesis and antimicrobial action of substituted 2-phenylquinazolinequinones  
 AUTHOR(S): Karpova, N. B.; Tsizin, Yu. S.; Rudzit, E. A.; Radkevich, T. P.; Kulikova, D. A.; Luk'yanov, A. V.  
 CORPORATE SOURCE: Inst. Med. Parazitol. Trop. Med. im. Martsinovskogo, Moscow, USSR  
 SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1974), 8(2), 21-4  
 CODEN: KHFZAN; ISSN: 0023-1134  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 GI For diagram(s), see printed CA Issue.  
 AB The quinazolinols I (R = Me<sub>2</sub>N, PhNH, MeNH) were oxidized by O in MeOH containing copper acetate and R<sub>1</sub>H (R<sub>1</sub> = morpholino, piperidino) to give the corresponding quinazolinodiones II. Reduction of II (R = R<sub>1</sub> = piperidino) by Zn in refluxing Ac<sub>2</sub>O-pyridine gave the diacetoxyquinazoline III. II (R = MeNH, R<sub>1</sub> = piperidino; R = R<sub>1</sub> = piperidino) possessed antibacterial activity at 0.19-25 µg/ml. Seven isomeric quinazolinodiones IV (R = MeO, piperidino; R<sub>1</sub> = HO, MeO, BuNH, MeNH, piperidino, morpholino) were tested for antibacterial activity and IV (R = HO, R<sub>1</sub> = piperidino) was effective at ≥6.25 µg/ml.  
 IT 52599-41-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, antibacterial activity of)  
 RN 52599-41-4 HCAPLUS  
 CN 5,6-Quinazolinodione, 2-phenyl-4-(phenylamino)-8-(1-piperidinyl)- (9CI) (CA INDEX NAME)



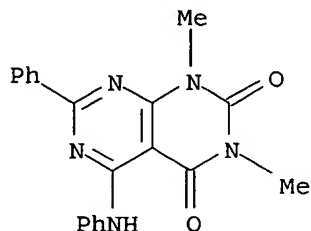
L69 ANSWER 30 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1974:47947 HCAPLUS

DOCUMENT NUMBER: 80:47947  
TITLE: New syntheses of pyrimido[4,5-d]pyrimidines  
AUTHOR(S): Yoneda, Fumio; Higuchi, Masatsugu  
CORPORATE SOURCE: Fac. Pharm. Sci., Kumamoto Univ., Kumamoto, Japan  
SOURCE: Bulletin of the Chemical Society of Japan (1973),  
46(12), 3849-53  
CODEN: BCSJA8; ISSN: 0009-2673  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI For diagram(s), see printed CA Issue.  
AB Novel conversions of pyrrolopyrimidines into pyrimidopyrimidines are described. The treatment of 5-nitrosopyrrolopyrimidine (I) under Beckmann conditions causes ring expansion to give pyrimidopyrimidine (II, R = H, Cl, Br). Both the reduction of I with triphenylphosphine, potassium pyrosulfite, or sodium dithionite in DMF and the oxidation of 5-aminopyrrolopyrimidine with Pb(OAc)<sub>2</sub> in DMF or HOAc afford II. 5-Aminopyrimidopyrimidine is prepared by the nucleophile-induced ring expansion of I. The possible mechanisms of these ring expansions are proposed.  
IT 37899-93-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 37899-93-7 HCAPLUS  
CN Pyrimido[4,5-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimethyl-7-phenyl-5-(phenylamino)- (9CI) (CA INDEX NAME)



L69 ANSWER 31 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1972:552101 HCAPLUS  
DOCUMENT NUMBER: 77:152101  
TITLE: Novel ring expansions of pyrrolopyrimidines to pyrimidopyrimidines  
AUTHOR(S): Yoneda, Fumio; Higuchi, Masatsugu  
CORPORATE SOURCE: Fac. Pharm. Sci., Kumamoto Univ., Kumamoto, Japan  
SOURCE: Chemical & Pharmaceutical Bulletin (1972), 20(9),  
2076-8  
CODEN: CPBTAL; ISSN: 0009-2363  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 77:152101  
GI For diagram(s), see printed CA Issue.  
AB Refluxing 1,3-dimethyl-5-nitroso-6-phenylpyrrolo[2,3-d]pyrimidine-2,4(1H,3H)-diones (I, R = H, Br, Cl) with K<sub>2</sub>S<sub>2</sub>O<sub>5</sub> in DMF gave the 1,3-dimethyl-5-hydroxy-7-phenylpyrimido[4,5-d]pyrimidine-2,4(1H,3H)-diones (II, R<sub>1</sub> = OH), and refluxing I (R = H) with NH<sub>3</sub> or amines in DMF gave II (R = H; R<sub>1</sub> = NH<sub>2</sub>, PhNH, PhCH<sub>2</sub>NH).  
IT 37899-93-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)  
RN 37899-93-7 HCAPLUS  
CN Pyrimido[4,5-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimethyl-7-phenyl-5-(phenylamino)- (9CI) (CA INDEX NAME)



L69 ANSWER 32 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1972:434565 HCAPLUS  
DOCUMENT NUMBER: 77:34565  
TITLE: Antiinflammatory and blood sugar-lowering  
4-amino-1H-pyrazolo[3,4-d]pyrimidine derivatives and  
their salts  
INVENTOR(S): Breuer, Hermann; Schulze, Ernst  
PATENT ASSIGNEE(S): Chemische Fabrik von Heyden A.-G.  
SOURCE: Ger. Offen., 15 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2140986	A	19720309	DE 1971-2140986	19710816
US 3720674	A	19730313	US 1970-69172	19700902
FR 2105198	A5	19720428	FR 1971-31800	19710902
			US 1970-69172	A 19700902

PRIORITY APPLN. INFO.:

GI For diagram(s), see printed CA Issue.

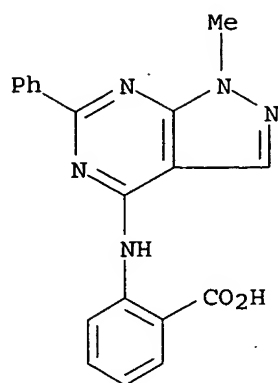
AB Seven title compds (I, R = Ph, C<sub>6</sub>H<sub>4</sub>Cl-p, cyclohexyl; R<sub>1</sub> = Cl, Me<sub>2</sub>N, pyrrolidino, Et<sub>2</sub>N, p-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>) were prepared by condensation of MeNHNH<sub>2</sub> (II) with EtOCH:C(CN)<sub>2</sub> (III), N-acylation, oxidative cyclization, and reaction with POCl<sub>3</sub>. Thus, II was heated 30 min with III to give the aminopyrazolecarbonitrile (IV), which was treated with PhCOCl in dioxane. The N-benzoylated product was then cyclized with H<sub>2</sub>O<sub>2</sub>-KOH to the pyridopyrazinone (V), which on reaction with POCl<sub>3</sub>-H<sub>3</sub>PO<sub>4</sub> gave I (R = Ph, R<sub>1</sub> = Cl).

IT 37799-20-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 37799-20-5 HCAPLUS

CN Benzoic acid, 2-[(1-methyl-6-phenyl-1H-pyrazolo[3,4-d]pyrimidin-4-yl)amino]- (9CI) (CA INDEX NAME)



L69 ANSWER 33 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1971:510332 HCAPLUS  
DOCUMENT NUMBER: 75:110332  
TITLE: Antibacterial 2-(5-nitro-2-furyl)thieno[3,2-d]pyrimidines  
INVENTOR(S): Woitun, Eberhard; Reuter, Wolfgang  
PATENT ASSIGNEE(S): Thomae, Dr. Karl, G.m.b.H.  
SOURCE: Ger. Offen., 35 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1959403	A	19710603	DE 1969-1959403	19691126
US 3661908	A	19720509	US 1970-90841	19701118
ES 385770	A1	19731116	ES 1970-385770	19701121
ES 385771	A1	19731116	ES 1970-385771	19701121
CH 558806	A	19750214	CH 1974-15147	19701123
CH 559210	A	19750228	CH 1970-17312	19701123
CH 567029	A	19750930	CH 1974-15146	19701123
CH 568324	A	19751031	CH 1974-15149	19701123
SU 403172	D	19731019	SU 1970-1494560	19701124
RO 56320	P	19740601	RO 1970-65079	19701124
RO 58535	P	19750915	RO 1970-67443	19701124
SU 539530	D	19761215	SU 1970-1494560	19701124
NL 7017210	A	19710528	NL 1970-17210	19701125
ZA 7007999	A	19710929	ZA 1970-7999	19701125
GB 1321316	A	19730627	GB 1970-56146	19701125
NO 129954	B	19740617	NO 1970-4524	19701125
DK 128781	B	19740701	DK 1970-6015	19701125
PL 85052	P	19760430	PL 1970-144640	19701125
FR 2073416	A5	19711001	FR 1970-42531	19701126
FR 2073416	B1	19750418		
AT 307396	B	19730525	AT 1970-10677	19701126
AT 312590	B	19740110	AT 1972-5273	19701126
IL 35729	A1	19740114	IL 1970-35729	19701126
SE 377938	B	19750804	SE 1970-16054	19701126
PRIORITY APPLN. INFO.:			DE 1969-1959403	A 19691126
			DE 1970-2050814	A 19701016



DE 1970-2050815	A 19701016
DE 1970-2050816	A 19701016
SU 1970-1727880	A 19701124

GI For diagram(s), see printed CA Issue.

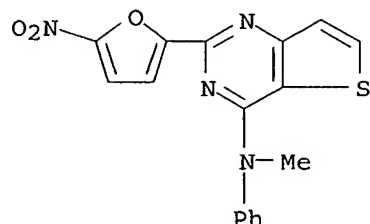
AB The title compds. (I) are prepared and are active against Staphylococcus aureus SG 511, Streptococcus aronson, Escherichia coli, and Trichomonas vaginalis. Thus, a mixture of Et 5-nitrofuran-2-iminocarboxylate and Me 3-aminothiophene-2-carboxylate is heated 1 hr at 130° to yield 65% 2-(5-nitro-2-furyl)-4-hydroxythieno[3,2-d]pyrimidine, which is converted with POCl<sub>3</sub> into 82 4-chloro-2-(5-nitro-2-furyl)-4-thieno[3,2-d]pyrimidine (II). To a mixture of II and Me<sub>2</sub>SO is added at 80° a solution of 2-ethylaminoethanol in Me<sub>2</sub>SO and the mixture is stirred 1 hr at 80° to yield 74% 4-N-ethyl-N-[2-hydroxyethyl]amino-2-(5-nitro-2-furyl)thieno[3,2-d]pyrimidine. Some 70 other I are described together with 6 pharmaceutical preps.

IT 33578-70-0P 33578-71-1P 33578-72-2P  
33578-73-3P 33578-74-4P 33578-75-5P  
33578-76-6P 33578-77-7P 33578-78-8P  
33705-04-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

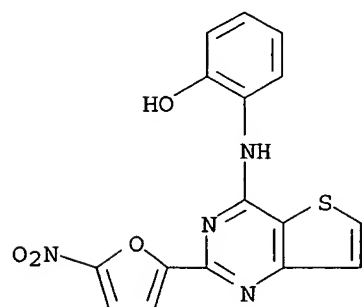
RN 33578-70-0 HCAPLUS

CN Thieno[3,2-d]pyrimidine, 4-(N-methylanilino)-2-(5-nitro-2-furyl)- (8CI)  
(CA INDEX NAME)



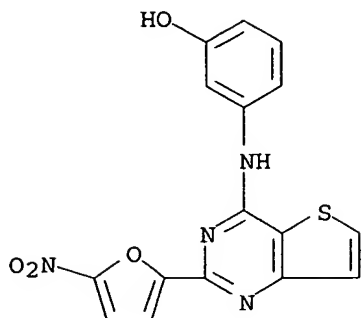
RN 33578-71-1 HCAPLUS

CN Phenol, o-[[2-(5-nitro-2-furyl)thieno[3,2-d]pyrimidin-4-yl]amino] - (8CI)  
(CA INDEX NAME)



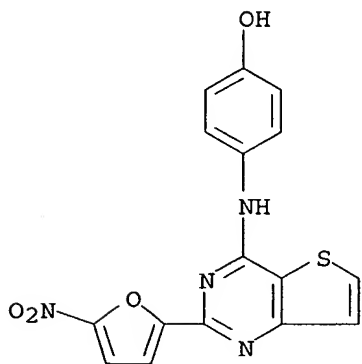
RN 33578-72-2 HCAPLUS

CN Phenol, m-[[2-(5-nitro-2-furyl)thieno[3,2-d]pyrimidin-4-yl]amino] - (8CI)  
(CA INDEX NAME)



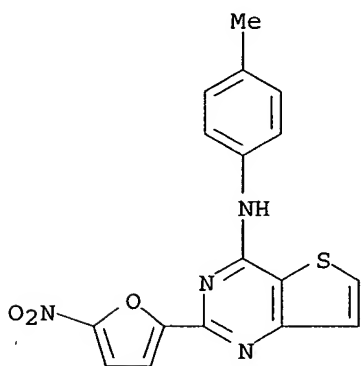
RN 33578-73-3 HCAPLUS

CN Phenol, p-[[2-(5-nitro-2-furyl)thieno[3,2-d]pyrimidin-4-yl]amino] - (8CI)  
(CA INDEX NAME)



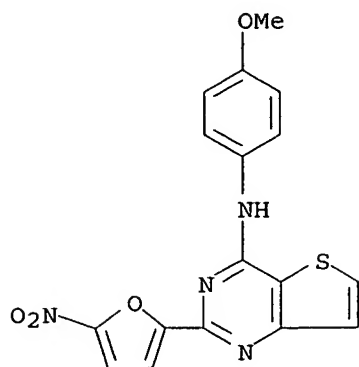
RN 33578-74-4 HCAPLUS

CN Thieno[3,2-d]pyrimidine, 2-(5-nitro-2-furyl)-4-p-toluidino- (8CI) (CA  
INDEX NAME)



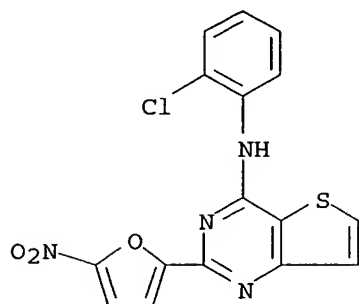
RN 33578-75-5 HCAPLUS

CN Thieno[3,2-d]pyrimidine, 4-p-anisidino-2-(5-nitro-2-furyl)- (8CI) (CA  
INDEX NAME)



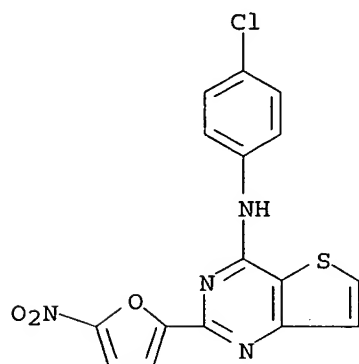
RN 33578-76-6 HCAPLUS

CN Thieno[3,2-d]pyrimidine, 4-(o-chloroanilino)-2-(5-nitro-2-furyl)- (8CI)  
(CA INDEX NAME)



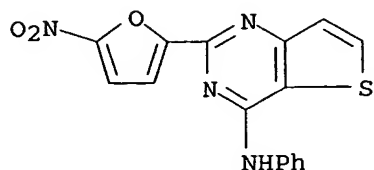
RN 33578-77-7 HCAPLUS

CN Thieno[3,2-d]pyrimidine, 4-(p-chloroanilino)-2-(5-nitro-2-furyl)- (8CI)  
(CA INDEX NAME)



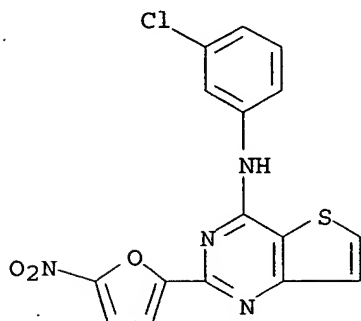
RN 33578-78-8 HCAPLUS

CN Thieno[3,2-d]pyrimidine, 4-anilino-2-(5-nitro-2-furyl)- (8CI) (CA INDEX  
NAME)



RN 33705-04-3 HCAPLUS

CN Thieno[3,2-d]pyrimidine, 4-(m-chloroanilino)-2-(5-nitro-2-furyl)- (8CI)  
(CA INDEX NAME)



L69 ANSWER 34 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1970:435316 HCAPLUS

DOCUMENT NUMBER: 73:35316

TITLE: 2-Phenyl-7,7-dimethyl- and 2,7-diphenyl-4-phenylamino-5-oxo-5,6,7,8-tetrahydroquinazoline

AUTHOR(S): Strakov, A. Ya.; Brutane, D.; Deich, V. D.

CORPORATE SOURCE: Rzh. Politekh. Inst., Riga, USSR

SOURCE: Latvijas PSR Zinatnu Akademijas Vestis, Kimijas Serija (1970), (2), 248-9

CODEN: LZAKAM; ISSN: 0002-3248

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI For diagram(s), see printed CA Issue.

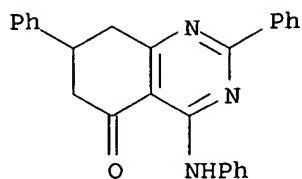
AB 5,5-Dimethyl- (Ia) and 5-phenyl-2-(phenylthiocarbamoyl)-1,3-hexanedione (Ib) yield, by the action of benzamidine (II), the corresponding 3-(N-benzamidinyl)-2-(phenylthiocarbamoyl)-2-cyclohexen-1-ones (IIIa, IIIb), which undergo cyclization to 2-phenyl-7,7-dimethyl- (IVa) or 2,7-diphenyl-4-(phenylamino)-5-oxo-5,6,7,8-tetrahydroquinazoline (IVb). Ib (40%), m. 151-3°, was prepared from 5-phenyl-1,3-cyclohexanedione and PhNCS. The reaction of Ia and Ib with II. HCl in EtOH-EtONa yielded, after boiling, IIIa (10 min, 55%, m. 174°) and IIIb [2 hr, 59%, m. 180-4° (decomposition)]. The ring closure was performed in boiling dioxane with several drops H3PO4 to give 57% IVa, m. 137-9°, and 50% IVb, m. 203-7° (decomposition).

IT 27351-00-4P 27351-01-5P

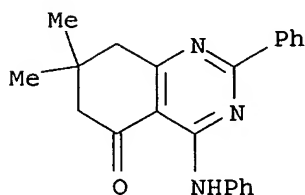
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 27351-00-4 HCAPLUS

CN 5(6H)-Quinazolinone, 4-anilino-7,8-dihydro-2,7-diphenyl- (8CI) (CA INDEX NAME)



RN 27351-01-5 HCAPLUS

CN 5(6H)-Quinazolinone, 4-anilino-7,8-dihydro-7,7-dimethyl-2-phenyl- (8CI)  
(CA INDEX NAME)

L69 ANSWER 35 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1962:486834 HCAPLUS

DOCUMENT NUMBER: 57:86834

ORIGINAL REFERENCE NO.: 57:4654h-i,4655a-f

TITLE: Syntheses with enamines. VIII. Heterocycles from  
enamine-isothiocyanate adducts

AUTHOR(S): Huenig, Siegfried; Huebner, Klaus

CORPORATE SOURCE: Univ. Marburg, Germany

SOURCE: Chemische Berichte (1962), 95, 937-43

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

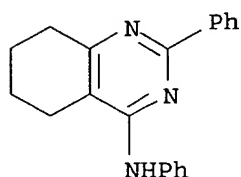
AB The adducts from enamines and isothiocyanates and their hydrolysis products, the  $\beta$ -carbonylthiocarboxamides, are excellent starting materials for the synthesis of heterocycles. Substituted amino groups can be introduced in this manner into difficultly accessible positions as demonstrated in the pyrazole and pyrimidine series. In 1 exceptional case a derivative of the previously unknown 3-azathio-4-pyrone was formed in place of the adduct. 1-Morpholino-1-cyclohexene (16.7 g.) in 15 cc.  $\text{CHCl}_3$  added dropwise with cooling and stirring during 45 min. to 32.6 g.  $\text{BzNCS}$  in 50 cc.  $\text{CHCl}_3$ , cooled 1 h., stirred until no further temperature increase occurred, refluxed 0.5 h., and refrigerated overnight yielded 12.0-13.4 g. 2-phenyl-5,6,7,8-tetrahydro-1,3-benzoxazine-4-thione (I), orange needles, m. 198-9° ( $\text{HCONMe}_2$ ) (all m.ps. are corrected); the tarry residue from the mother liquor gave some N-(morpholinothiocarbonyl)benzamide, m. 144-5°. I (2.43 g.) in 30 cc. refluxing  $\text{Me}_2\text{CO}$  treated dropwise with 2.1 g.  $\text{MeI}$  in 5 cc.  $\text{Me}_2\text{CO}$ , refluxed 0.5 h., cooled, and filtered gave 3.62 g. 4-methylthio-2-phenyl-5,6-tetramethylene-3-azapyrylium iodide (II), decomposed gradually above 150°; it evolved  $\text{MeSH}$  in moist air. II (2.3 g.) in 10 cc. refluxing  $\text{EtOH}$  treated dropwise during 5 min. with 10 cc. 2N  $\text{HCl}$ , refluxed 10 min., aerated, cooled, diluted with 20 cc.  $\text{H}_2\text{O}$ , and filtered, and the residue repptd. from 15 cc. hot  $\text{MeOH}$  with 15 cc.  $\text{H}_2\text{O}$  gave 1.12 g. N-benzoyl-2-cyclohexanonecarboxamide (III), m. 150-1.5°. III (1.021 g.), 5 cc. concentrated  $\text{NH}_4\text{OH}$ , and 5 cc.  $\text{EtOH}$  refluxed 0.5 h. gave 552 mg. 4-hydroxy-2-phenyl-5,6-

tetramethylenepyrimidine (IV), m. 238-9° (sealed capillary) (repptd. from HCONMe<sub>2</sub> with H<sub>2</sub>O). II (5.0 g.) in 30 cc. refluxing MeOH treated dropwise during 5 min. with 10 cc. concentrated NH<sub>4</sub>OH, refluxed 0.5 h., cooled, diluted with H<sub>2</sub>O to incipient turbidity, and refrigerated overnight yielded 2.36 g. 4-MeS analog of IV, m. 118-19° (1:1 HCONMe<sub>2</sub>-H<sub>2</sub>O). 2-Ethyl-3-pyrrolidinoacrylic acid thioanilide (5.22 g.) and 1 cc. 90% N<sub>2</sub>H<sub>4</sub>.H<sub>2</sub>O heated in 25 cc. EtOH yielded 3.40 g. 3(5)-anilino-4-ethylpyrazole, rhombs, m. 113° (C<sub>6</sub>H<sub>6</sub>-ligroine). β-Morpholinothiocinnamic acid anilide (V) (3.24 g.), 15 cc. EtOH, and 1 cc. 90% N<sub>2</sub>H<sub>4</sub>.H<sub>2</sub>O refluxed 1.5 h., filtered, and diluted with a few cc. H<sub>2</sub>O gave 1.72 g. 3(5)-anilino-5(3)-phenylpyrazole, plates, m. 152.5-3.5°; HCl salt, m. 167-8°. BzCH<sub>2</sub>CSNHPh (2.55 g.) in 15 cc. EtOH refluxed 1.5 h. with 1.62 g. PhNHNH<sub>2</sub>, diluted to turbidity with H<sub>2</sub>O, and filtered gave 2.4 g. 1,5-diphenyl-3-anilinopyrazole (VI), m. 154-5° (MeOH). V (3.24 g.) gave similarly 2.45 g. VI, m. 154.5-5.5°. 2-Morpholino-1cyclohexenethiocarboxanilide (VII) (6.0 g.), 35 cc. EtOH, and 1 cc. 90% N<sub>2</sub>H<sub>4</sub>.H<sub>2</sub>O refluxed 2 h., heated 15 min. with C, filtered, cooled, and diluted with 35 cc. H<sub>2</sub>O gave 2.95 g. 3-anilino-4,5-tetramethylenepyrazole (VIII), m. 169-70° (PhMe). 2-Cyclohexanonethiocarboxanilide (IX) (4.7 g.) gave similarly 2.76 g. VIII, m. 169-70°. 2-Morpholino-1cyclopentenethiocarboxanilide (5.75 g.), 30 cc. EtOH, and 1 cc. 90% N<sub>2</sub>H<sub>4</sub>.H<sub>2</sub>O refluxed 2 h., filtered, diluted with 2 vols. H<sub>2</sub>O, and refrigerated overnight yielded 2.75 g. 3-anilino-4,5-trimethylenepyrazole (X), m. 163-4°. 2-Cyclopentanonethiocarboxanilide (4.38 g.) gave similarly 3.04 g. X. β-Morpholinothiocinnamic acid benzamide (3.52 g.) in 25 cc. EtOH refluxed 1 h. with 1 cc. 90% N<sub>2</sub>H<sub>4</sub>.H<sub>2</sub>O, filtered, treated with H<sub>2</sub>O to incipient turbidity, cooled, and filtered yielded 1.83 g. 3-benzamido-5-phenylpyrazole, m. 189-91° (MeOH). VII (3.02 g.) in 20 cc. EtOH refluxed 3 h. with 2.35 g. benzamidine-HCl, cooled, and filtered gave 1.47 g. 4-anilino-2-phenyl-5,6-tetramethylenepyrimidine (XI), m. 150-1° (ligroine). IX (2.33 g.) gave similarly in the presence of 0.015 mol NaOEt 1.35 g. XI, m. 150.5-1.5°.

IT 88828-40-4, Quinazoline, 4-anilino-5,6,7,8-tetrahydro-2-phenyl-  
(preparation of)

RN 88828-40-4 HCAPLUS

CN Quinazoline, 4-anilino-5,6,7,8-tetrahydro-2-phenyl- (7CI) (CA INDEX NAME)



L69 ANSWER 36 OF 36 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1962:423207 HCAPLUS

DOCUMENT NUMBER: 57:23207

ORIGINAL REFERENCE NO.: 57:4653e-i,4654a-h

TITLE: Syntheses with enamines. VII. Addition of isocyanates and isothiocyanates to enamines

AUTHOR(S): Huenig, Siegfried; Huebner, Klaus; Benzing, Erhard

CORPORATE SOURCE: Univ. Marburg, Germany

SOURCE: Chemische Berichte (1962), 95, 926-36

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 57:23207

AB cf. CA 55, 11398b. The addition of several enamines to various substituted isocyanates and iso-thiocyanates is described. The resulting adducts can be hydrolyzed smoothly to  $\beta$ -carbonyl(thio)carboxamides. Pyrrolidine (142 g.) and 50 g. powdered  $K_2CO_3$  treated dropwise at  $-10^\circ$  with 72 g.  $PrCHO$ , stirred 0.5 h. at room temperature, filtered, and distilled yielded 68 g.

1-pyrrolidino-1-butene (I), b12  $57-9^\circ$ . AcPh (120 g.) and 130 g. morpholine in 300 cc. PhMe refluxed 70 h. with 5 g. acidic montmorillonite catalyst K-10 with the azeotropic removal of  $H_2O$  gave 101 g. 1-morpholino-1-phenylethylene (II), b0.1  $86-9^\circ$ . 1-Morpholino-1-cyclopentene (III) (15.3 g.), 25 cc.  $C_6H_6$ , and 9.9 g. BUNCO (IV) heated 2 h. under N at  $60^\circ$ , stirred 0.5 h. with 60 cc. 2N HCl, the aqueous phase neutralized with solid  $Na_2CO_3$ , saturated with NaCl, and extracted with  $C_6H_6$ , and the extract distilled yielded 10.3 g. 2-cyclopentanonecarboxylic acid butylamide, b0.05  $103-5^\circ$ ; semicarbazone m.  $206-9^\circ$  (EtOH). 1-Morpholino-1-cyclohexene (V) (16.7 g.) and 9.9 g. IV heated 4 h. under N on the water bath, dissolved in 25 cc.  $CHCl_3$ , and stirred with 55 cc. 2N HCl, and the aqueous phase worked up in the usual manner yielded 12.0-13.1 g. 2-cyclohexanonecarboxylic acid butylamide, b0.15  $118-21^\circ$ ; semicarbazone m.  $164-6^\circ$ . III (30.6 g.) in 40 cc.  $Me_2CO$  treated during 1 h. with stirring with 23.8 g. PhNCO and 10 cc.  $Me_2CO$ , stirred, kept 1 h. at room temperature, cooled 3 h. at  $0^\circ$ , and filtered gave 36.0-9.5 g. 2-morpholinocyclopentenecarboxanilide (VI), m.  $122-7^\circ$  (decomposition) (all m.ps. are corrected). VI (27.3 g.) in 125 cc. 2N HCl kept 2 h. and filtered gave 15.4 g. 2-oxocyclopentanecarboxanilide, leaflets, m.  $90-2^\circ$ , which heated 1 h. at  $95^\circ$ , change to prisms, m.  $102-4^\circ$ . V (16.7 g.) in 25 cc.  $Me_2CO$  treated during 20 min. With 11.9 g. PhNCO, kept 1 h. at room temperature, 2.3-h. at  $0^\circ$ , and filtered gave 20.5-2.5 g. 2-morpholinocyclohexenecarboxamide (VII), m.  $120-5^\circ$ . VII (14.2 g.) in 60 cc. boiling MeOH treated dropwise with a few cc. 2N HCl, filtered, treated with HCl (total amount 30 cc.), cooled, and filtered gave 10.010.4 g. 2-oxocyclohexanecarboxanilide, m.  $106-8^\circ$  (3:1 cyclohexane-EtOAc). II (9.45 g.) in 30 cc. cyclohexane treated dropwise during 15 min. with 5.95 g. PhNCO in 5 cc. cyclohexane, heated 0.5 h. at  $80^\circ$ , cooled, and filtered, the residue (12.1 g.) boiled with 60 cc. MeOH, acidified dropwise with 2N HCl, filtered, and refrigerated overnight gave 8.45-8.90 g.  $BzCH_2CONHPh$ , m.  $105-7^\circ$ . I (12.5 g.) in 20 cc. dry EtOAc treated dropwise with stirring during 45 min. with 11.9 g. PhNCO at about  $30^\circ$ , refrigerated over-night, and filtered yielded 14.5 g. 1-pyrrolidino-1-butenecarboxanilide (VIII), prisms, m.  $117-23^\circ$  (decomposition) (reprecipitated from hot EtOAc with petr. ether). VIII (7.5 g.) dissolved with warming with 15 cc. EtOH and 15 cc. 2N HCl and cooled yielded 3.0 g.  $EtCH(OCNHPh)CH(OH)OEt$ , needles, m. about  $95-100^\circ$  (EtOH-petr. ether). p-MeC $_6$ H $_4$ SO $_2$ NCO (19.7 g.) in 20 cc.  $CHCl_3$  added during 1 h. with stirring to 16.7 g. V and 25 cc.  $CHCl_3$  at  $30-5^\circ$ , stirred 0.5 h. at room temperature, treated dropwise with 50 cc. 2N HCl. and stirred 0.5 h., the  $CHCl_3$  layer evaporated, and the oily residue refluxed 0.5 h. with C in 45 cc.  $C_6H_6$ , filtered, and refrigerated over-night yielded 18 g. N-(p-MeC $_6$ H $_4$ SO $_2$ ) derivative of VII, m.  $125-7^\circ$  ( $C_6H_6$ ). III (30.6 g.) in 75 cc. MeOH treated dropwise with stirring during 0.5 h. with 27 g. PhNCS in 20 cc. MeOH, refluxed 1 h., and refrigerated overnight gave 47.5-9.5 g. 3-morpholino-1-cyclopentenethiocarboxanilide (IX), m.  $115-19^\circ$  (decomposition) (MeOH). IX (5.0 g.) in 20 cc. refluxing EtOH neutralized dropwise with 2N HCl and cooled gave 3.2 g. 2-cyclopentanoneethiocarboxanilide, m.  $96-7^\circ$  (cyclohexane-EtOH). V (33.5 g.) (33.5 g.) in 75 cc. MeOH and 27 g. PhNCS refluxed 1.5 h. and

refrigerated overnight yielded 45.8-50.2 g. 2-morpholino-1-cyclohexene-thiocarboxanilide (X), m. 125-9° (decomposition) (MeOH). X (4.8 g.) in 30 cc. refluxing EtOH neutralized slowly with about 10 cc. 2N HCl, diluted with 3-4 cc. H<sub>2</sub>O, and refrigerated overnight gave 2.3 g. 2-cyclohexanonethiocarboxanilide, m. 84-9° (decomposition) (cyclohexane-EtOAc). II (9.5 g.), 30 cc. EtOAc, and 6.75 g. PhNCS refluxed 1 h. and cooled yielded 12.5 g. β-morpholinothiocinnamic acid anilide (XI), m. 157-8° (EtOAc). XI (3.24 g.) in 20 cc. EtOH acidified dropwise with 2N HCl, treated with a few drops H<sub>2</sub>O, and refrigerated overnight gave 2.4 g. BzCH<sub>2</sub>CSNHPh, m. 80-3° (1:1 EtOH-H<sub>2</sub>O). I (12.5 g.) and 25 cc. EtOAc treated with stirring during 20 min. dropwise with 13.5 g. PhNCS, refluxed 0.5 h., and refrigerated overnight gave 17.5 g. 1-pyrrolidino-1-butene-2-thiocarboxanilide, yellow plates, m. 106-9° (decomposition) (EtOH). II (18.9 g.) in 50 cc. cyclohexane treated dropwise during 45 min. with stirring with 16.3 g. BzNCS in 25 cc. cyclohexane and filtered after 1 h. gave 26.4 g. N-benzoyl-β-morpholinothiocinnamamide (XII), m. 161-4°. XII (17.6 g.) in 200 cc. EtOH treated slowly dropwise with 5.5 cc. concentrated

HCl, refluxed 0.5 h., cooled, and filtered yielded 12.3 g. BzCH<sub>2</sub>CSNH<sub>2</sub> (XIII), m. 140-2° (1:1 EtOH-H<sub>2</sub>O). XIII (5.0 g.), 25 cc. EtOH, and 10 cc. concentrated NH<sub>4</sub>OH refluxed, treated with a small amount C, refluxed 1 h., filtered, ditd. to incipient turbidity with H<sub>2</sub>O, cooled, and filtered, and the residue boiled briefly with 35 cc. 2N HCl, cooled, and filtered gave 3.1 g. BzCH<sub>2</sub>-CONHBz, m. 168-9° (in sealed capillary) (reprecipitated from HCONMe<sub>2</sub> with H<sub>2</sub>O). III (7.7 g.) in 50 cc. ligroine treated dropwise with stirring during 45 min. with 8.15 g. BzNCS in 10 cc. ligroine at 35-40°, stirred 0.5 h. at room temperature, and filtered gave 13.2 g. N-benzoyl-2-morpholinothiocarboxamide (XIV). XIV (3.16 g.) in 25 cc. hot 1:1 EtOH-H<sub>2</sub>O treated dropwise slowly with concentrated HCl to acidity, heated

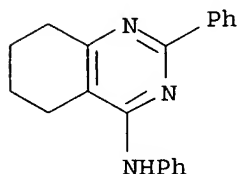
to

boiling, and refrigerated overnight yielded 1.63 g. N-benzoyl-2-cyclopentanonethiocarboxamide, yellow needles, m. 91.5-2.5° (MeOH).

IT 88828-40-4, Quinazoline, 4-anilino-5,6,7,8-tetrahydro-2-phenyl- (preparation of)

RN 88828-40-4 HCAPLUS

CN Quinazoline, 4-anilino-5,6,7,8-tetrahydro-2-phenyl- (7CI) (CA INDEX NAME)





=> file marpat

FILE 'MARPAT' ENTERED AT 09:51:42 ON 15 AUG 2006

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FILE CONTENT: 1961-PRESENT VOL 145 ISS 7 (20060811/ED)

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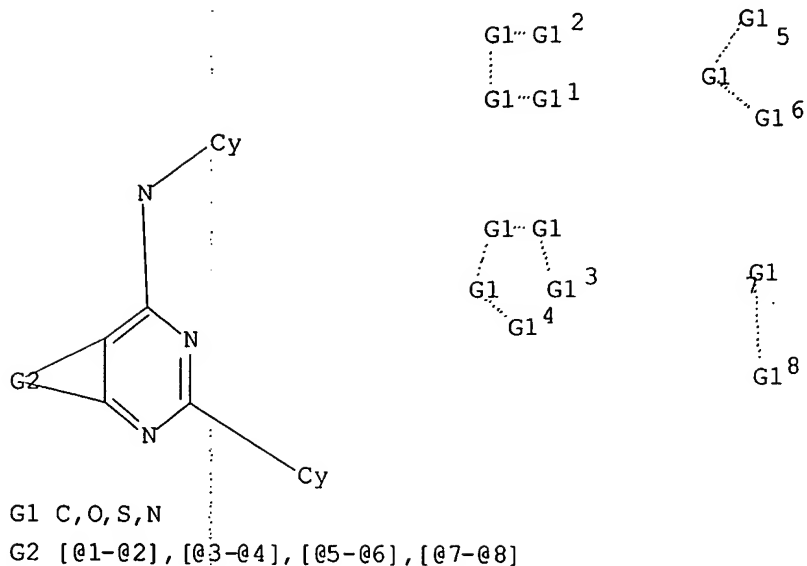
MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US	2006135764	22 JUN 2006
DE	102004057645	01 JUN 2006
EP	1674464	28 JUN 2006
JP	2006143645	08 JUN 2006
WO	2006070546	06 JUL 2006
GB	2421183	21 JUN 2006
FR	2879449	23 JUN 2006
RU	2277091	27 MAY 2006
CA	2488034	19 MAY 2006

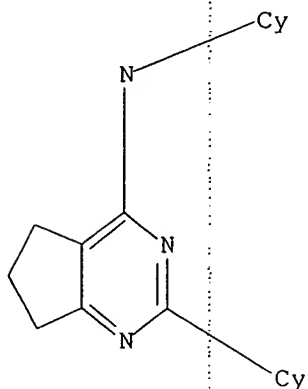
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=> d que 119  
L3 STR



Structure attributes must be viewed using STN Express query preparation.  
L5 2753 SEA FILE=REGISTRY SSS FUL L3  
L10 STR



Structure attributes must be viewed using STN Express query preparation.  
L12 55 SEA FILE=REGISTRY SUB=L5 SSS FUL L10  
L13 11 SEA FILE=CAPLUS ABB=ON PLU=ON L12  
L18 15 SEA FILE=MARPAT SSS FUL L10  
L19 9 SEA FILE=MARPAT ABB=ON PLU=ON L18 NOT L13

=> d ibib abs qhit 119 tot

L19 ANSWER 1 OF 9 MARPAT COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 144:432827 MARPAT

TITLE: Preparation of fused pyrimidine derivatives as insulin secretion accelerators

INVENTOR(S): Yonetoku, Yasuhiro; Negoro, Kenji; Onda, Kenichi; Hayakawa, Masahiko; Sasuga, Daisuke; Nigawara, Takahiro; Iikubo, Kazuhiko; Moritomo, Hiroyuki; Yoshida, Shigeru; Ohishi, Takahide

PATENT ASSIGNEE(S): Astellas Pharma Inc., Japan

SOURCE: PCT Int. Appl., 79 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006043490	A1	20060427	WO 2005-JP19000	20051017
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

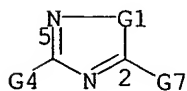
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GI

JP 2004-305374 20041020

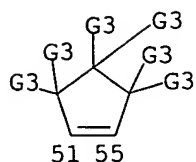
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [A = Q1, etc.; R1 = (un)substituted cyclopropyl, (un)substituted cyclobutyl, (un)substituted cyclopentyl, etc.; R2 = -NR21R22, (un)substituted cyclic amino; R21, R22 = H, alkyl, alkenyl, etc.] and their pharmaceutically acceptable salts were prepared. For example, reaction of 4-chloro-2-(4-chloro-2,5-difluorophenyl)-5,7-dihydrothieno[3,4-d]pyrimidine 6,6-dioxide, e.g., prepared from 4-chloro-2,5-difluorobenzonitrile in 5 steps, with (R)-3-methylpiperidine (R)-mandelic acid salt followed by treatment with HCl afforded compound II hydrochloride. In insulin secretion accelerating assays, compound II hydrochloride exhibited the activity of 355%. Compds. I are claimed useful for the treatment of diabetes, obesity, etc.

MSTR 1



G1 = 51-5 55-2



G4 = Ph (substd. by 1 or more G9)  
 G7 = 114

HN—G8  
 114

G8 = Ph (opt. substd.)

Patent location: claim 1  
 Note: or pharmaceutically acceptable salts  
 Note: substitution is restricted

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 2 OF 9 MARPAT COPYRIGHT 2006 ACS on STN

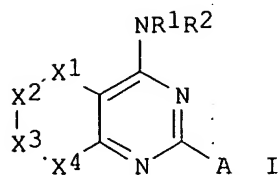
ACCESSION NUMBER: 142:240451 MARPAT  
 TITLE: Preparation of condensed pyrimidinamines as inhibitors of voltage-gated sodium and calcium ion channels  
 INVENTOR(S): Wilson, Dean M.; Termin, Andreas P.; Neubert, Timothy D.  
 PATENT ASSIGNEE(S): Vertex Pharmaceuticals Incorporated, USA; Wang, Jian; Zhang, Yulian; Gonzales, Jesus E., III; Martinborough, Esther; Zimmerman, Nicole  
 SOURCE: PCT Int. Appl., 175 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014558	A1	20050217	WO 2004-US25559	20040805
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004263515	A1	20050217	AU 2004-263515	20040805
US 2005187217	A1	20050825	US 2004-912912	20040805
EP 1663994	A1	20060607	EP 2004-780401	20040805
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
NO 2006001080	A	20060419	NO 2006-1080	20060306

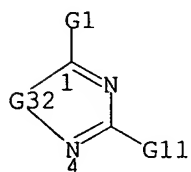
PRIORITY APPLN. INFO.:

US 2003-493036P 20030805  
WO 2004-US25559 20040805

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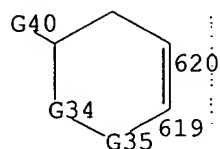
AB Title compds. [I; X1-X3 = NR3, CO, CHR4, S, SO, SO2; X4 = 0-2 of X1; R1, R2 = H, (substituted) alipharyl, (hetero)aryl, (hetero)cyclaryl; NR1R2 = (substituted) 3-8 membered (aromatic) ring; R3 = H, (substituted) alipharyl, aryl, heteroaryl, heterocyclaryl, etc.; R4 = QRx; Q = bond, alkylidene, etc.; Rx = H, halo, NO2, cyano, etc.; A = (substituted) mono- or bicyclic aryl; with provisos], were prepared as inhibitors of voltage-gated sodium and calcium ion channels (no data). Thus, 2-(4-chloro-7-methyl-5,6,7,8-tetrahydroquinazolin-2-yl)phenol (preparation given), Et3N, and Me2NH were stirred together overnight in THF to give 67% 2-(4-dimethylamino-7-methyl-5,6,7,8-tetrahydroquinazolin-2-yl)phenol.

**MSTR 1**

G1 = 11

G2—G31  
11

G2 = NH  
G11 = Ph (opt. substd. by G22)  
G31 = Ph (opt. substd. by G6)  
G32 = 620-1 619-4



G34 = 621

HC—G36  
621

Saloni Sharma

08/15/2006

G35 = (0-2) 659

HC—G42  
659

Patent location: claim 1  
 Note: substitution is restricted  
 Note: or pharmaceutically acceptable salts  
 Note: additional substitution also claimed

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 9 MARPAT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 138:137303 MARPAT

TITLE: Preparation of fused heterocycle substituted  
 aminothiazolecarbonitriles as tyrosine kinase  
 inhibitors

INVENTOR(S): Bilodeau, Mark T.; Manley, Peter J.; Hartman, George  
 D.

PATENT ASSIGNEE(S): Merck &amp; Co., Inc., USA

SOURCE: PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003009852	A1	20030206	WO 2002-US23191	20020719
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

US 2004235867 A1 20041125

PRIORITY APPLN. INFO.:

US 2004-484986 20040123

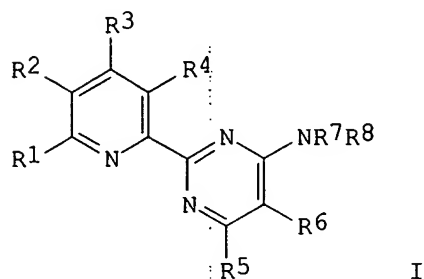
US 2001-307443P 20010724

WO 2002-US23191 20020719

GI

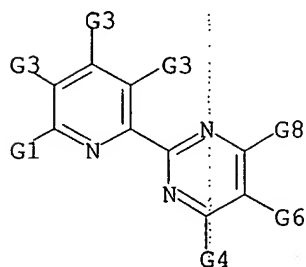
EP 407899 B1 19950301  
 R: AT, CH, DE, ES, FR, GB, GR, IT, LI  
 DE 3922735 A1 19910124 DE 1989-3922735 19890711  
 US 5250530 A 19931005 US 1990-549764 19900709  
 HU 54280 A2 19910228 HU 1990-4151 19900710  
 DE 1989-3922735 19890711

PRIORITY APPLN. INFO.:  
 GI



AB Title compds. I [R1 = H, alkyl, alkoxyalkyl, phenylalkyl, etc.; R2, R3, R4 = H, alkyl, (un)substituted phenyl; R5 = H, alkyl, cycloalkyl, alkoxy, alkylthio, etc.; R6 = H, alkyl, alkoxy, alkenyloxy, halo, (un)substituted Ph, etc.; R7, R8 = H, alkyl, alkoxyalkyl, phenylalkyl, etc.] were prepared as agricultural fungicides. Thus, 4-chloro-6-methyl-2-(2-methyl-6-pyridinyl)pyrimidine, PrNH<sub>2</sub>, K<sub>2</sub>CO<sub>3</sub>, and PhCH<sub>2</sub>N+Et<sub>3</sub> Cl<sup>-</sup> were refluxed 7 h in MeCN to give 95% I (R1 = R5 = Me, R2 = R3 = R4 = R6 = R7 = H, R8 = Pr). When applied to barley plants at 500 mg/L of spray, several I showed 100% activity against organisms such as Erysiphe graminis.

MSTR 1



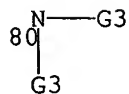
G7 = (3-4) CH<sub>2</sub>  
 G8 = 20

G9—G10  
 20

G9 = NH  
 G10 = Ph (opt. substd.)  
 G4 + G6 = G7  
 Derivative:  
 Patent location:

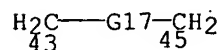
and acid addition salts  
 claim 1

G1 = 80



G3 = Ph  
G17 = (1-4) CH<sub>2</sub>  
G18 = Ph (opt. substd. by (up to 2) G19)  
G12+G16= 43-2 45-1

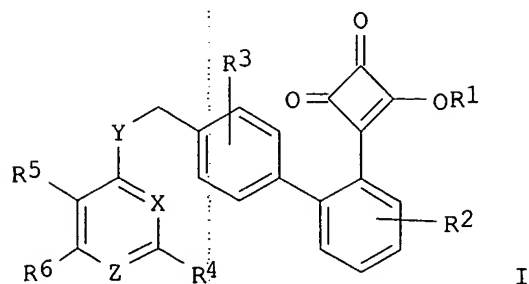
103



Patent location: claim 14

L19 ANSWER 7 OF 9 MARPAT COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 121:205384 MARPAT  
TITLE: Heterocycles substituted with biphenyl-3-cyclobutene-1,2-dione derivatives as antagonists of angiotensin II receptors  
INVENTOR(S): Soll, Richard M.; Kinney, William A.  
PATENT ASSIGNEE(S): American Home Products Corp., USA  
SOURCE: U.S., 7 pp. Cont.-in-part of U.S. Ser. No. 782,029, abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5330989	A	19940719	US 1992-943614	19920911
PRIORITY APPLN. INFO.: GI			US 1991-782029	19911024

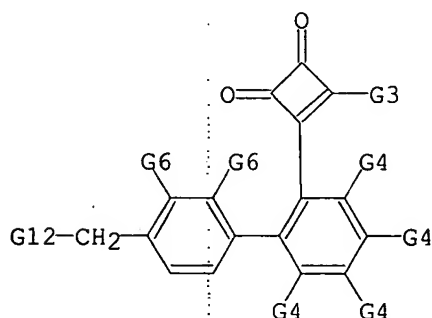


AB The title compds.[I; R1 = H, alkyl, benzyl, alkoxyalkyl, Ph; R2 = H, (un)substituted alkyl, alkoxyalkyl, Ph, alkoxy, F, Cl, Br, I, (un)substituted NH<sub>2</sub>, etc.; R3 = H, (un)substituted alkyl, benzyl,



alkoxyalkyl, Ph, alkoxy, F, Cl, Br, I, etc.; R4 = H, (un)substituted NH2, OR1, CN, F, Cl, I, Br, perfluoroalkyl, alkyl, Ph, alkoxy, alkoxyalkyl, (CH2)nCO2R1, (un)substituted (CH2)nCONH2; n = 1-5; R5, R6 = H, alkyl, benzyl, alkoxyalkyl, Ph, F, Cl, (un)substituted NH2; R5R6 = a C linking chain of ≤6 linking members; Y = O, (un)substituted NH, etc.; X = N, (un)substituted CH; Z = N, (un)substituted CH], which are angiotensin II antagonists, useful as antihypertensives, etc., are prepared Thus, 3-hydroxy-4-[4'-[[[5,6,7,8-tetrahydro-2-(trifluoromethyl)-4-quinazolinyl]amino]methyl][1,1'-biphenyl]-2-yl]-3-cyclobutene-1,2-dione, m.p. 193° (decomposition), which was prepared in 5 steps from 2-(4'-aminomethylphenyl)nitrobenzene, demonstrated IC50 against 125I-angiotensin II using rat-derived angiotensin II receptors of 25nM.

**MSTR 2**



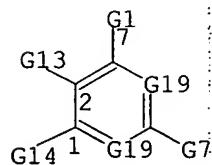
G1 = 9

N—G2  
9

G2 = Ph  
G7 = Ph  
G10 = (1-4) 61

G11  
|  
C  
|  
G11

G12 = 7



G19 = N  
G13+G14= G10

Derivative: or pharmaceutically acceptable salts  
 Patent location: disclosure

L19 ANSWER 8 OF 9 MARPAT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 121:134144 MARPAT

TITLE: Substituted pyridine pesticides and agrochemical fungicides

INVENTOR(S): Mueller, Thomas; Eicken, Karl; Harreus, Albrecht;  
 Koenig, Hartmann; Rentzea, Costin; Ammermann,  
 Eberhard; Lorenz, Gisela

PATENT ASSIGNEE(S): BASF A.-G., Germany

SOURCE: Eur. Pat. Appl., 51 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

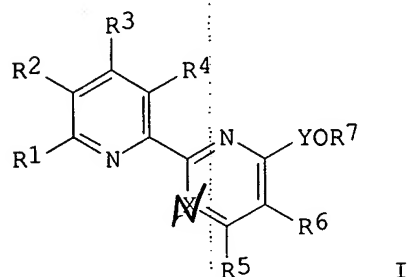
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 588146	A2	19940323	EP 1993-113887	19930831
EP 588146	A3	19941026		
EP 588146	B1	19981111		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
IL 106786	A1	19970218	IL 1993-106786	19930824
CA 2105001	AA	19940311	CA 1993-2105001	19930827
AT 173254	E	19981115	AT 1993-113887	19930831
US 5346899	A	19940913	US 1993-115041	19930901
AU 9346199	A1	19940317	AU 1993-46199	19930909
AU 664478	B2	19951116		
HU 66580	A2	19941228	HU 1993-2559	19930909
JP 06199792	A2	19940719	JP 1993-225351	19930910
			DE 1992-4230215	19920910

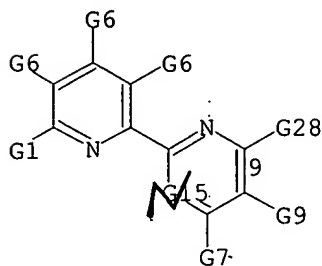
PRIORITY APPLN. INFO.:

GI



AB The title compds. [I; R1 = H, (un)substituted C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, (un)substituted C3-7 cycloalkyl, etc.; R2-R4 = H, C1-6 alkyl, (un)substituted Ph; R5 = H, C1-6 alkyl, C3-7 cycloalkyl, etc.; R6 = H, C1-4 alkyl, C1-4 alkoxy, C1-4 alkoxy carbonyl, halogen, (un)substituted Ph; R7 = H, C1-12 alkyl, C3-12 alkenyl, C3-8 alkynyl, monocyclic or polycyclic (un)substituted C5-10 cycloalkenyl, C5-10 cycloalkenyl-substituted Me, etc.; X = CH, N; Y = C(R10):N, NR11; R10 = H, C1-6 alkyl; R11 = H, C1-6 alkyl, (un)substituted C3-8 cycloalkyl, (un)substituted Ph, etc.], useful as agrochem. pesticides and fungicides, are prepared Thus,

4-formyl-2-(2-pyridyl)pyrimidine was condensed with hydroxylammonium chloride, producing I [R1-R6 = H, X = N, Y = C(:NOH)H], m.p. 190°, in 46% yield.

**MSTR 1**

G10 = (3-4) CH2  
 G15 = N  
 G16 = 33

$\text{N} \text{---} \text{G18}$   
 33

G18 = Ph (opt. substd. by (up to 3) G19)  
 G28 = 22

$\text{G16} \text{---} \text{G11}$   
 22 23

G7 + G9 = G10

Derivative: and botanically acceptable acid addition salts and metal complexes

Patent location: claim 1

Note: substitution is restricted

Note: also incorporates claims 3, 9 and 11

L19 ANSWER 9 OF 9 MARPAT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 115:29367 MARPAT

TITLE: Fungicidal pyridinylpyrimidinamines and their preparation

INVENTOR(S): Giencke, Wolfgang; Sachse, Burkhard; Wicke, Heinrich

PATENT ASSIGNEE(S): Hoechst A.-G., Germany

SOURCE: Eur. Pat. Appl., 89 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 407899	A2	19910116	EP 1990-112903	19900706
EP 407899	A3	19910724		

AU 9652874	A1	19961030	AU 1996-52874	19960410
AU 694647	B2	19980723		
EP 826673	A1	19980304	EP 1996-909327	19960410
EP 826673	B1	20021120		

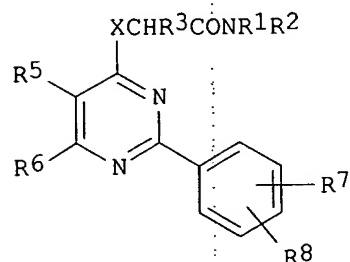
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI

CN 1186487	A	19980701	CN 1996-194408	19960410
CN 1094929	B	20021127		
BR 9604894	A	19980714	BR 1996-4894	19960410
RU 2160256	C2	20001210	RU 1997-118591	19960410
SK 281840	B6	20010806	SK 1997-1374	19960410
CZ 289093	B6	20011017	CZ 1997-3223	19960410
RO 117532	B1	20020430	RO 1997-1858	19960410
AT 228113	E	20021215	AT 1996-909327	19960410
PT 826673	T	20030228	PT 1996-909327	19960410
ES 2187644	T3	20030616	ES 1996-909327	19960410
TW 450963	B	20010821	TW 1996-85104372	19960412
NO 9704685	A	19971212	NO 1997-4685	19971010
NO 310619	B1	20010730		
US 5972946	A	19991026	US 1997-930604	19971014

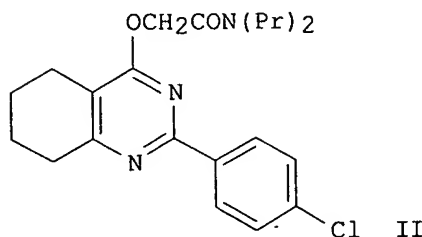
PRIORITY APPLN. INFO.:

JP 1995-113937	19950413
WO 1996-JP977	19960410

GI



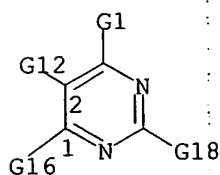
I

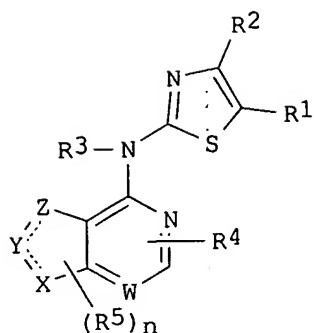


II

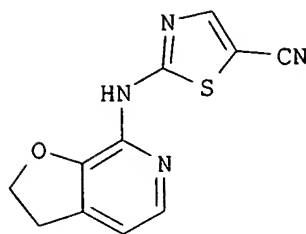
AB The title compds. I [X represents O or NR<sub>4</sub>; R<sub>1</sub> represents H, lower alkyl, lower alkenyl or cycloalkyl(lower)alkyl; R<sub>2</sub> represents lower alkyl, cycloalkyl, optionally substituted Ph, etc.; R<sub>3</sub> represents H, lower alkyl or hydroxy(lower)alkyl; R<sub>4</sub> represents H, lower alkyl, etc.; R<sub>5</sub> represents hydroxy(lower)alkyl, etc.; R<sub>6</sub> represents H, lower alkyl, CF<sub>3</sub> or optionally substituted Ph, or R<sub>5</sub> and R<sub>6</sub> together form (CH<sub>2</sub>)<sub>n</sub>; n = 3 - 6; R<sub>7</sub> represents H, halogeno, lower alkyl, lower alkoxy, CF<sub>3</sub>, OH, NH<sub>2</sub>, etc.; and R<sub>8</sub> represents H, halogeno, lower alkyl or lower alkoxy] are prepared In an in vitro test for affinity for the peripheral benzodiazepine receptors, the title compound II in vitro showed IC<sub>50</sub> of 0.89 nM.

## MSTR 2



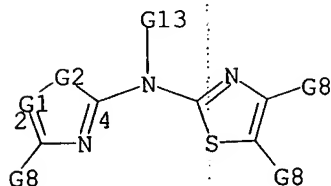


I

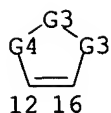


II

AB The present invention relates to the preparation of title compds. I [wherein X, Y, and Z = C, S, N, or O, provided that at least one of X, Y, or Z = C; W = C or N; n = 0-6; R1, R2, and R4 = independently H, perfluoroalkyl(oxy), OH, CN, halo, or (un)substituted (CO)rOs-alkyl, (CO)rOs-alkenyl, (CO)rOs-alkynyl, (CO)rOs-aryl, (CO)rOs-heterocyclyl, or alkyl-NRaRb; R3 = H, SO2Rc, (CO)rRc, or CO2Rc; R5 = R3 or Or(CO)sNRaRb, halo, OH, oxo, perfluoroalkyl(oxy), CHO, CO2H, CN, or (un)substituted (CO)rOs-aryl, (CO)rOs-heterocyclyl, or (CO)rOs-alkyl; r = 0-1; s = 0-1; Ra and Rb = independently H, SO2Rc, CO2Rc, or (un)substituted (CO)r-alkyl, (CO)r-heterocyclyl, or (CO)r-aryl; or NRaRb = (un)substituted monocyclic or bicyclic heterocycle; Rc = (un)substituted alkyl, aryl, benzyl, or heterocyclyl; or pharmaceutically acceptable salts or stereoisomers thereof], which inhibit, regulate, and/or modulate tyrosine kinase signal transduction, compns. which contain these compds., and methods of using them to treat tyrosine kinase-dependent diseases and conditions. For example, 7-bromofuro[2,3-c]pyridine was converted to the amine using benzophenone imine, NaOBu-t, racemic BINAP, and Pd2(dba)3 in dry toluene and then hydrogenated with 10% Pd/C in AcOH to give 2,3-dihydrofuro[2,3-c]pyridin-7-amine. Addition of 2-chloro-5-cyanothiazole in the presence of NaH in THF afforded the (furopyridinylamino)thiazolecarbonitrile II. In bioassays, I inhibited VEGF-stimulated mitogenesis of human vascular endothelial cells in culture with IC50 values between 0.001  $\mu$ M and 5.0  $\mu$ M. Thus, I are useful for the treatment of angiogenesis, cancer, tumor growth, atherosclerosis, age related macular degeneration, diabetic retinopathy, inflammatory diseases, and the like in mammals (no data).

**MSTR 1A**

G1 = N  
G2 = 12-2 16-4

G3 = CH<sub>2</sub> (opt. substd.)G4 = CH<sub>2</sub> (opt. substd.)

G8 = Ph

Patent location:

claim 1

Note:

or pharmaceutically acceptable salts

Note:

additional oxo substitution also claimed

Stereochemistry:

or stereoisomers

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 4 OF 9 MARPAT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 137:337914 MARPAT

TITLE: Preparation of 4-amino-2-(pyridin-2-yl)pyrimidines as microbicides.

INVENTOR(S): Haap, Wolfgang; Hoelzl, Werner; Petzold, Karin

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: Eur. Pat. Appl., 33 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

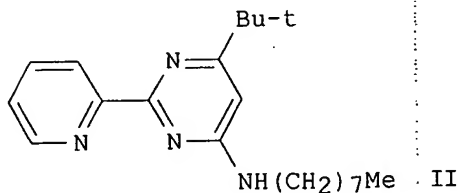
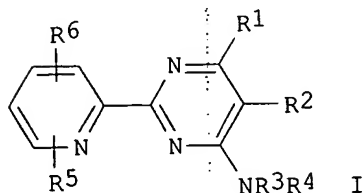
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1254903	A1	20021106	EP 2002-405291	20020411
EP 1254903	B1	20050608		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AT 297390	E	20050615	AT 2002-405291	20020411
ES 2242839	T3	20051116	ES 2002-2405291	20020411
US 2003092718	A1	20030515	US 2002-124198	20020417
US 7015228	B2	20060321		
JP 2003026675	A2	20030129	JP 2002-117360	20020419
			EP 2001-810387	20010420

PRIORITY APPLN. INFO.:

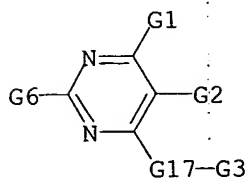
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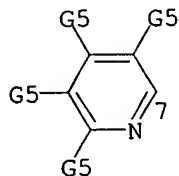
AB Title compds. [I; R<sub>1</sub>, R<sub>2</sub> = H, (mono- or polyhalo-substituted) alkyl, alkoxy, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, OH, alkoxyalkyl, carboxy, alkyloxycarbonyl, cyano, (di)alkylamino, alkylaminoalkyl, halo, Ph, (alkyl-, halo-, hydroxy-substituted) phenylalkyl, PhO, phenylalkoxy;

R1R2 = (CH2)m; m = 2-12; R3 = unsubstituted alkyl, amino-, hydroxy-, carboxy- or alkyloxycarbonyl-substituted alkyl, cycloalkyl, alkenyl, alkynyl, cycloalkylalkyl, alkoxyalkyl, R7R8Nalkyl, Ph, phenylalkyl, phenylalkoxy; R4 = H, (alkyl-, halo-, hydroxy-substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, alkoxyalkyl, R7R8N-C1-C20alkyl, Ph, phenylalkyl, phenoxyalkyl; R5, R6 = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, OH, alkoxy, alkoxyalkyl, carboxy, alkyloxycarbonyl, cyano, NO2, alkylamino, alkylaminoalkyl, haloalkyl, haloalkoxy, halo, (alkyl-, halo-, hydroxy-substituted) Ph, PhO, phenylalkyl, phenylalkoxy; R5R6 = (CH2)m; m = 2-12; R7, R8 = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, Ph, phenylalkyl], were prepared They are suitable for the antimicrobial treatment of surfaces, as antimicrobial active substances against gram-pos. and gram-neg. bacteria. Thus, title compound (II) inhibited Staphylococcus aureus ATCC 9144 with a min. inhibitory concentration of 1.9 µg/mL.

**MSTR 1**



G3 = Ph  
G6 = 7



G11 = (2-12) CH2  
G17 = NH  
G1 +G2 = G11  
Patent location: claim 1

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 5 OF 9 MARPAT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 134:340517 MARPAT

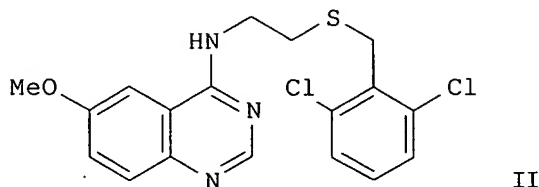
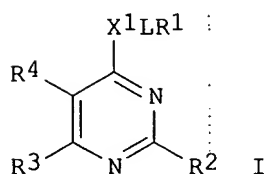
TITLE: Preparation of heterocycles containing a 4-substituted pyrimidine subunit for pharmaceutical use as mGluR1 antagonists

INVENTOR(S): Ambler, Samantha Jayne; Baker, Stephen Richard; Clark, Barry Peter; Coleman, Darrell Stephen; Foglesong, Robert James; Goldsworthy, John; Jagdmann, Gunnar Erik, Jr.; Johnson, Kirk Willis; Kingston, Ann Elizabeth; Owton, William Martin; Schoepp, Darryle Darwin; Hong, Jian Eric; Schkeryantz, Jeffrey Michael; Vannieuwenhze, Michael Scott; Zia-Ebrahimi, Mohammad Sadegh

PATENT ASSIGNEE(S): Eli Lilly and Company, USA  
 SOURCE: PCT Int. Appl., 237 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032632	A2	20010510	WO 2000-US26261	20001019
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG EP 1230225 A2 20020814 EP 2000-971987 20001019 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL PRIORITY APPLN. INFO.: US 1999-162900P 19991101 WO 2000-US26261 20001019				

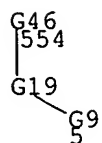
GI



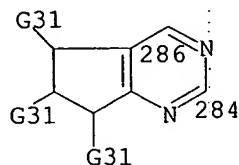
AB Heterocycles containing a 4-substituted pyrimidine subunit, such as I [R1 = carbocyclyl, heterocyclyl; R2 = H, CN, SCH<sub>2</sub>CN, halogen, alkylthio, alkoxy, alkylsulfonyl, alkylamino, alkylsulfinyl, etc.; R3, R4 = alkyl; R3R4 = fused heterocycle, such as S(CH<sub>2</sub>)<sub>3</sub>, CH<sub>2</sub>O(CH<sub>2</sub>)<sub>2</sub>, CH:CHS, or fused carbocycle, such as CH:CHCH:CH, (CH<sub>2</sub>)<sub>4</sub>; L = alkylene or heteroalkylene linking group; X1 = O, NH], were prepd for pharmaceutical use as mGluR1 antagonists for treatment of migraine. Thus, quinazolinine II was prepared in three steps, which included cyclization of 2-amino-5-methoxybenzoic acid with formamidine to form 6-methoxy-4(1H)-quinazolinone, chlorination with phosphorus oxychloride to form 4-chloro-6-methoxyquinazoline followed by amination with 2-(2,6-dichlorobenzylthio)ethylamine. The prepared pyrimidines were tested for mGluR1 and mGluR5 metabotropic glutamate receptor antagonist activity and were found to be 10 fold selective for the mGluR1 receptor.

MSTR 1





G1 = NH  
 G2 = bond  
 G8 = Ph (opt. substd. by (1-2) G25)  
 G9 = Ph (opt. substd. by (1-2) G18)  
 G19 = 286-554 284-5



G46 = 1

G1—G2—G8  
 1 3

Patent location: claim 1  
 Note: or pharmaceutically acceptable salts  
 Note: also incorporates claim 25, formulas II and IV

L19 ANSWER 6 OF 9 MARPAT COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 126:18884 MARPAT  
 TITLE: Preparation and formulation of pyrimidine derivatives  
 as agents with effect on the peripheral benzodiazepine  
 receptors  
 INVENTOR(S): Murata, Teruya; Hino, Katsuhiko; Furukawa, Kiyoshi;  
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 PATENT ASSIGNEE(S): Dainippon Pharmaceutical Co., Ltd., Japan  
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WO 9632383	A1	19961017	WO 1996-JP977	19960410
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
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ZA 9602438	A	19961001	ZA 1996-2438	19960327
CA 2218033	AA	19961017	CA 1996-2218033	19960410